COMMERCIAL BUILDINGS PROTOTYPES FOR MISSION BAY

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COMMERCIAL BUILDING PROTOTYPES
FOR MISSION BAY

September 16, 1986

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1.0 Introduction

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1.0 INTRODUCTION

This Commercial Building Prototypes report is one of about 20 special studies for Mission Bay. The three hundred acre Mission Bay project will eventually encompass most of the activities and uses that are found in cities. This report examines some of those uses in order to develop prototype information for the future development and construction of buildings and open spaces. The study is intended to identify the quantitative and qualitative characteristics of 1) office buildings, 2) buildings leased to concerns which are doing research and/or developing new products or technologies (R & D) and light industrial buildings, and 3) buildings/ spaces used for retail (both large scale and neighborhood) and for the display and contract wholesale of furniture. Based on analyzing existing examples of these types, the work seeks to define and suggest characteristics and minimum requirements for development of the various uses and to illustrate in prototypical form what these developments might look like within the context of the Mission Bay site.

The methodology used for the study involved locating examples of buildings and developments that fitted the anticipated program for Mission Bay. Data was gathered about these projects and subsequently displayed according to the characteristics or criteria that seemed most appropriate. Based on an analysis of this data, design factors and prototype designs were prepared to illustrate the characteristics and requirements of each type when applied to the Mission Bay site. This methodology takes a slightly different form for each of the three major uses, but holds true overall.

1.0 INTRODUCTION

This study is one of many such studies which seek to provide detailed guidance about different aspects of the Mission Bay site, context, and program. The Housing Mix/Finance/Building Prototypes study provides comparable information on housing prototypes. Further, this study follows the publication of three earlier reports, the Background and Preliminary Findings Report, Draft Working Paper, November 8, 1985; Objectives and Policies, Proposal for Citizen Review, December 30, 1985; and Choices for Mission Bay, Planning Cosiderations, June 11, 1986. The report refers directly to the principles and objectives, community interests, current opportunities, and constraints established by the previous reports.

The prototypical building types illustrated are not to be viewed as proposals to be constructed. Instead, they are models of the various characteristics which are necessary to the development of suitable buildings of each type. Care has been taken to try to produce prototypes which will harmonize with the context of the Mission Bay site and will continue the lively architectural heritage of San Francisco.

1.1 SUMMARY AND CONCLUSIONS

1.1.1 OFFICE AND MIXED USE/CONCLUSIONS

This report indicates that office buildings and mixed use developments can be effectively designed and developed on the blocks north of the China Basin Channel. The report gives data about several existing developments that have characteristics that would be suitable for Mission Bay. From an analysis of these projects, prototype designs have been developed that show a range of configurations for the Mission Bay sites.

The study concludes that the maximum office development that can be accommodated on a single block is about 800,000 square feet, within the height limit suggested by the Mayor's letter of October 1984, combined with the life safety limit in the Uniform Building Code. With some taller buildings, this number could be 900,000 square feet. Building height limitations, therefore, tend to control density. Parking is also a control, but not to the same extent. A parking ratio of 1 car per 750 square feet can be accommodated in structures above grade. A lesser ratio of 1 car per 1,000 square feet would not allow more office area, but would produce lower parking structures or perhaps more public open space.

Office buildings will likely be no more than six or seven stories in height due to the building code life safety limit of 75 feet. The next economical height might be 12 stories or more. This same code limit may permit nine story residential blocks, due to lower floor heights.

Certain urban design features such as mid-block view corridors and quarter-block development modules are suggested as a way to deal with the very long blocks and the needs of phased development.

1.1.2 RESEARCH & DEVELOPMENT/CONCLUSIONS

Prototypical R & D buildings exhibit floor area ratios of 1.19 for the two-story and 2.42 for the four-story. R & D uses could be accommodated within the existing block configuration of Mission Bay. Buildings should be sufficiently flexible in plan so as to allow for sub-division to 2,500 square feet per user. Buildings should maintain front setbacks of sufficient width (approx. 35 feet) to buffer residential uses. Landscaping should reduce the visual impact of parking (both surface and structured). Parking ratios of 1 space per 1,000 gross square feet should be sufficient if public transportation is provided to the site. Streets should have a minimum of two lanes in each direction and a parking lane should be provided. Block widths required for this use are 150 feet with a service alley to the rear large enough to accommodate semi-trailers.

1.1.3 LIGHT INDUSTRIAL/CONCLUSIONS

The Mission Bay program for the development of light industrial buildings calls for sharing acreage with R & D uses. The floor area ratio for prototypical light industrial building is 0.76. These buildings will be single story. Light industrial uses are presently found at Mission Bay, and the existing block configuration would continue to serve this use. Buildings of this type should have flexible plans to allow for subdivision to 2,500 square feet per user. Front setbacks typically have been reserved for parking and require approximately 80 feet. Rear setbacks will be required for loading/unloading functions and should be 100 feet. It is possible for two buildings to share the same service setbacks if they are arranged back-to-back, and such pairing should be encouraged to maximize land use efficiency. Landscaping should be incorporated to buffer parking and service areas. Street trees should be used to minimize the visual impact of the long (approximately 250 ft.) side walls.

Parking ratios of 1 space per 1,000 gross square feet of development may be sufficient if public transportation is provided to the site. Streets should have a minimum of two lanes in each direction and parking land should be provided. Block widths of at least 250 feet will be required and the streets should be designed to accommodate semi-trailer usage. Special care should be given to the roof treatments of these buildings because of their size and visual prominence.

1.1.4 SMALL SCALE RETAIL/CONCLUSIONS

The analysis of retail projects and retail streets in San Francisco provides a good basis for establishing criteria for a retail street in Mission Bay. The report provides parameters for the design of retail shops along a street and gives general guidance for the dimensions of such shop spaces.

1.1.5 LARGE SCALE RETAIL/CONCLUSIONS

The prototypical large scale retail buildings exhibit floor area ratios between 0.66 and 1.72. The prototypes developed are derivatives of building types that typically appear on suburban sites; however, they would appear to merit development within the City. The suburban designs would have to be modified to meet the requirements of urban development, primarily the need for structured parking.

These buildings, because of their city wide marketing orientation, should be located adjacent to the freeway (near 3rd Street and 16th Street). They require large parcels of land, typically rectangularly shaped with street frontages on at least three sides. Block sizes required for these uses should be at least 450 feet by 850 feet. Typical floor plates for this use range from 40,000 to 100,000 square feet.

Future building types may see several of these "promotional sized" retail stores forming malls which are street oriented and do not have the same kind of centrally focues amenities as typical shopping (auto) malls.

Large scale retail operations are land use intensive, and as land values change, so does the character of land usage. Thus, it is necessary to provide flexible sites if this development is to be encouraged. Setbacks will reflect the location of surface parking, if provided. It is recommended that there be public landscaping with street trees and buffering of parking structures with private landscaping. Parking ratios of at least 1 space per 300 gross square feet should be provided, since most customers will utilize private transportation.

In order to improve traffic flows and to provide a sense of place for this use, it is recommended that a boulevard (1 parking lane each side, 2 driving lanes each side, and a 15 ft. planted median for left turns) be provided on the side accessed by the freeway. Other streets serving the site should have semi-trailer use capability. Utilization of a uniform style and material pallette would also contribute to creating a sense of place.

1.1.6 FURNITURE RETAIL/CONCLUSIONS

Two types of prototypical furniture retail buildings have been developed for Mission Bay. The differences between the two types derive from their different approaches to marketing. The non-custom furniture stores sell from stock which they keep on the premises for distribution to the customer at "will-call" loading docks. Merchandise is typically available as an "in stock" item, and there usually are frequent "sales" to reduce or change inventory.

Contrasting with these large (50,000 - 100,000 square feet) noncustom furniture stores are the smaller (10,000 - 25,000 square feet) custom furniture stores. The custom stores have little or no inventory for the customer to pick up; instead, they have substantial display items which then are customized with the purchaser's selected finish or fabric. The store then arranges for direct delivery from the manufacturer. Custom stores increasingly have chosen to locate adjacent to the "Showplace Square" area, while the large stores have traditionally located next to the freeway.

If large retail uses are developed as non-custom furniture stores, these stores should be located adjacent to the freeway with other large scale retail concerns. Block sizes required for this use should be approximately 300 feet x 425 feet. Setbacks are determined by parking. Surface parking, at 1 space per 900 gross square feet, should be sufficient to satisfy customer requirements. Parking should be located on the side, and the front of the building should have a minimal (10 feet) setback in order to maintain uniformity of facades. This use would also be appropriate on a boulevard. Public landscaping should be present in the form of street trees, and private landscaping should buffer parking and warehouse areas from view. Accommodations should be made for customer pick-up and for delivery by semi-trailer.

The small custom furniture stores will, in all likelihood, continue to move into the "Showplace Square" area. These stores should be encouraged to renovate well designed existing buildings or to build on infill lots as they occur within the area. This part of Mission Bay site, being the most urban, should reinforce the uniformity of building facades and encourage building with zero setbacks. Parking requirements should be met through the development of satellite lots. Street widths should be minimal and street parking allowed. Alternatively, this use could represent an opportunity for a "pedestrian only" sector of the site.

1.1.7 WHOLESALE/CONCLUSIONS

Prototypical buildings developed for the wholesale of furniture exhibit floor area ratios between 2.85 and 5.47. Prototypes have been derived from existing buildings at "Showplace Square". The most consistent characteristic of these buildings is their need to have flexible space with a lease span of approximately 50 feet. It would then appear that a building with these characteristics could be built on a non-rectilinear, shaped site. This use should be sited adjacent to the existing design center and should mimic that area's site characteristics, including zero setbacks, satellite parking, and private landscaping at building entries. Designs for these buildings should exhibit architectural interest, exemplify a fully mature style, and continue the lively architectural heritage of the existing buildings. Characteristics of the latter are: Masonry exterior, classical or "high- tech" detailing, monumental entries, and substantial public spaces.

2.0 Office and Mixed Uses

2.0 OFFICE AND MIXED USES

Mission Bay, contiguous with downtown and easily accessible by mass transit, is a logical site for office uses. New office space at Mission Bay could provide many new entry level jobs in the City (16,700 "back of office" jobs are projected in the Mission Bay Background and Preliminary Findings Report, draft dated 8 November 1985).

There are at least three distinct office markets that may be appropriate for Mission Bay. The one most discussed to date is the so-called secondary office space or back office space. These terms basically describe large floor plate buildings, outside of the financial district, which can house clerical and data processing activities. Users of these types of buildings may not require a great deal of interior differentiation, and often prefer large, unobstructed floors for efficiency and communication. Floor plate areas for these buildings would generally be over 35,000 square feet.

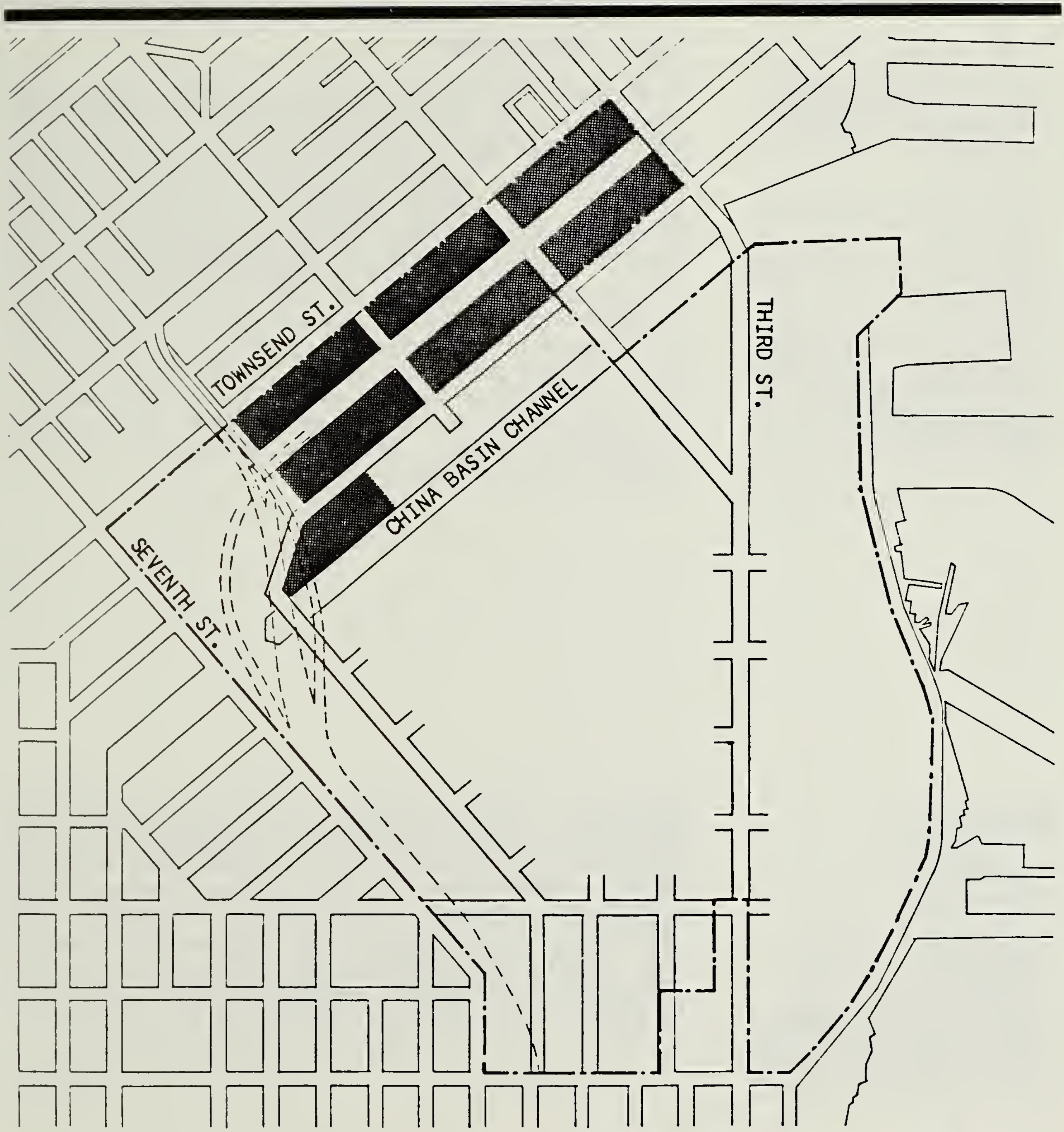
A second distinct office market is the small headquarters user. This category is comprised of companies who desire identity and image, and, therefore, do not want to be lost on a floor or in a building that is too large. Such companies would be CPA firms, attorneys, engineering companies, sales companies and the like. They would prefer buildings that have floor plates in the range of 10,000 to 20,000 square feet and that are easily divisible into private offices, conference rooms and other custom spaces. It should be possible to subdivide floors for tenants as small as 2,000 square feet. These users would appreciate the view opportunities that the Mission Bay site offers of the Bay and the downtown skyline.

The third market is less defined, but no less important. This group encompasses the mid-size tenants whose needs and image would best be served by buildings with floor plates in the 15,000 to 25,000 sf range. Such buildings would be analogous to the Shaklee Building or 595 Market Street in floor plan area.

The report prepared by the Institute for the Future (IFTF) gives a more detailed description of office possibilities for Mission Bay.

2.1 DESIGN FACTORS

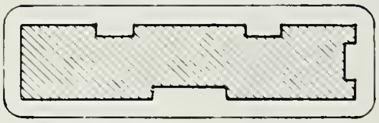
Design of an office or mixed use building is shaped by many overlapping concerns -- urban context and site characteristics, budget, code requirements, building program, parking needs, preferred structural system, and material selections. In this section, the impact of such parameters are discussed separately in relationship to development of offices at Mission Bay. For the purposes of this study, it has been assumed that office development would occur primarily on blocks north of the China Basin Channel, contiguous with the south of Market office/service area. The prototype building designs described in a later section illustrate typical responses to the various design factors which would be appropriate for the north of channel blocks.



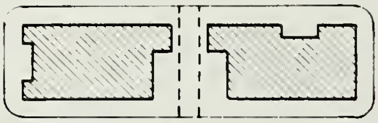
Potential Office Sites in Mission Bay

2.1 Design Factors

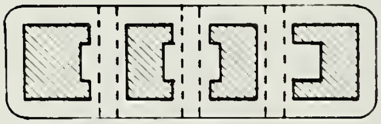
2.1.1 URBAN DESIGN



Full Block

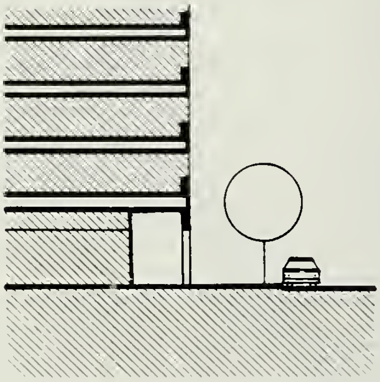


Half Blocks



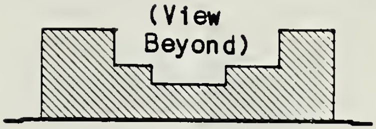
Quarter Blocks

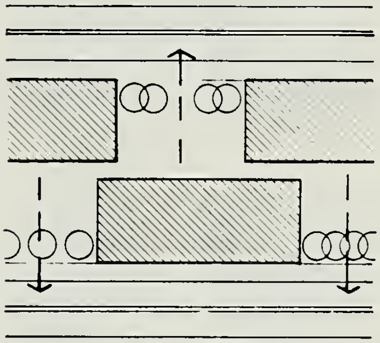
BLOCK SUBDIVISION: The south of Market Street grid produces blocks which are approximately 837 feet x 223 feet. In actuality, block sizes may vary somewhat depending on street widenings and other future changes. For instance, widths of block could be anywhere from 180 feet to 240 feet. For the sake of this study, 223 feet has been assumed as an average. The blocks can be divided into various increments, from whole block developments to four or five buildings on a single block. Parcel size and setback requirements will determine the amount of ground level open space available and the built texture of the urban area. It may be desirable to standardize half- and quarter-block parcels to permit development of mid-block pedestrian pathways and view corridors extending through several adjacent blocks.



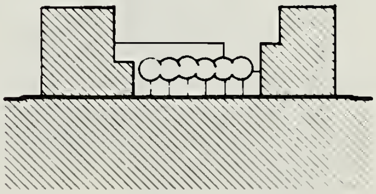
RELATION TO STREET EDGES: Following San Francisco tradition, exterior building walls should align with the street grids and hold the sidewalk edge at ground level. Exceptions would be recessed colonnades and designated courtyards. This alignment provides strong definition to the streetscape, organizes and strengthens the forms of intervening public outdoor spaces, and enhances pedestrian activity. Retail and lobby uses will be convenient to pedestrian traffic flow.

VIEWS: Depending on the form of the Mission Bay development, there are great opportunities to capture views from new office development on the north side of the Channel. Views of the downtown skyline and and San Francisco Bay offer value to the project and amenity to the tenants. Massing of new office buildings should permit such views. For instance, buildings may step down to mid-block view corridors, or building masses may be staggered to allow panoramic views in several directions.

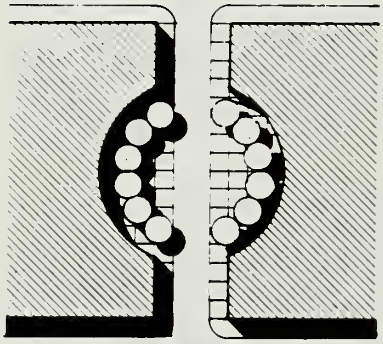




MASSING: The massing of building forms on a site determine views as well as solar access to open space and the definition of street spaces and interior open spaces. In general, it is best to have taller masses near street edges and the very tallest masses at corners (giving definition to intersections, the major nodes of cities). It is also generally true that taller parts of developments should be on north sides of blocks, for solar access to interior public spaces, or public spaces at south edge of block. However, care must be taken to respect the solar access and massing of adjacent developments as overriding concerns.

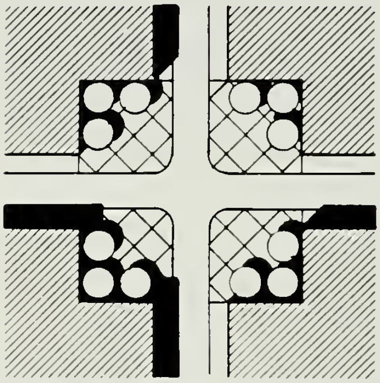


2.1 Design Factors

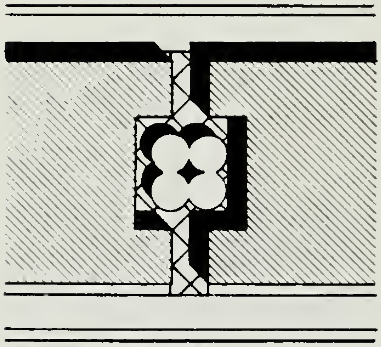


Mid-Block Passage

COURTYARDS, PLAZAS, PASSAGES: The best used and most memorable public spaces are those that have recognizable shape and strong edges defined either by landscaping or buildings. Office buildings should be carefully sited and massed to define a variety of usable ground level outdoor spaces. Examples might include mid-block plazas on busy streets, street corner plazas, or a series of smaller courtyards entered off mid-block passageways.



Street Corner Plaza

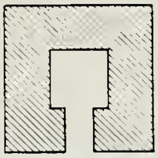


Courtyard Off
Mid-Block Plaza

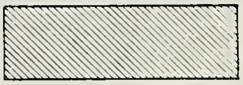
2.1.2 BUILDING DESIGN

BUILDING FORM: The office floor areas required for potential Mission Bay markets will vary from a low of perhaps 10,000 to approximately 35,000 square feet. Many building forms will accommodate these spaces, including courtyard, linear and compact configurations, connected towers, or complexes of individual buildings. Any of these forms could be accommodated on the large south of Market blocks.

SOLAR ORIENTATION: The north of channel blocks will permit maximum solar access with the long axis of buildings running in the east/west direction. Beyond this generalization, a number of strategies may be employed. Upper floors may be reduced in depth to increase solar access. Buildings may be staggered with open spaces to improve solar gain. Taller parts of buildings may be sited on the north side of parcels. Solar orientation should be a primary determinant in locating outdoor space. For instance, important open spaces should not be blocked or have extensive shadowing from adjacent structures. Individual open spaces, however, must be considered in the context of an open space network.

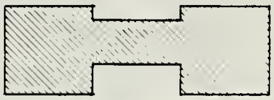


Courtyard

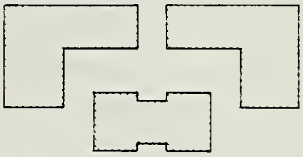


Linear

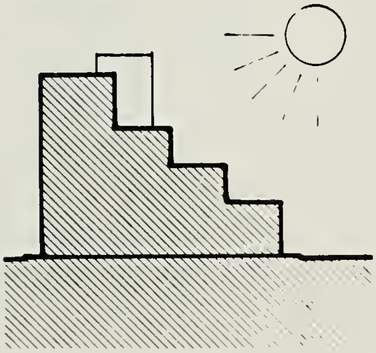
Compact



Connected Towers



Complex

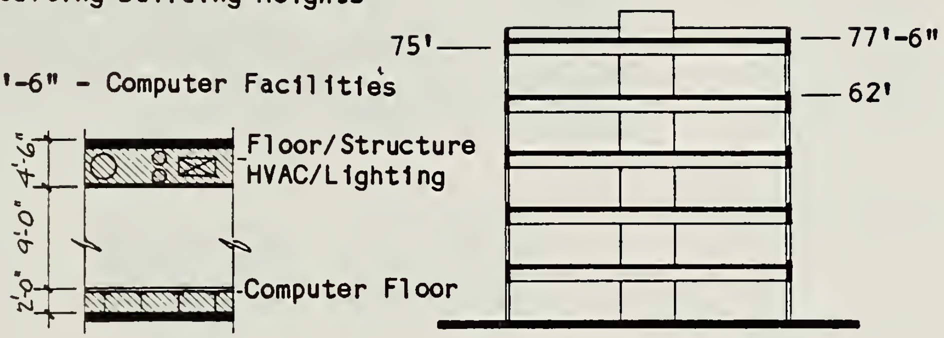


2.1 Design Factors

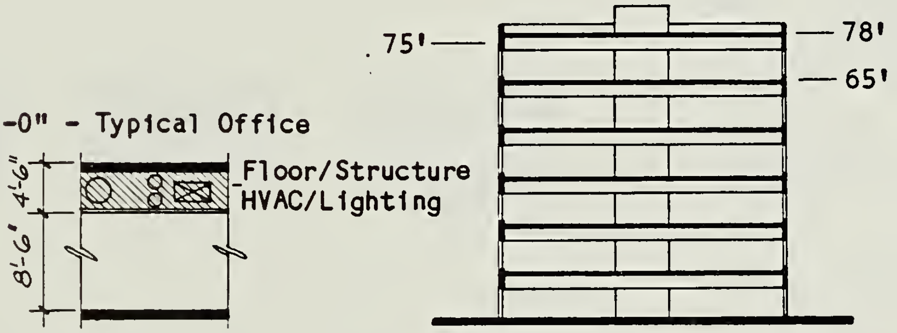
BUILDING HEIGHT AND FLOOR-TO-FLOOR HEIGHT: It has been assumed to date that the eight story height limit mentioned in the Mayor's letter of October 1984 to Southern Pacific Land Company, will govern development in Mission Bay. An eight story office building may have a height of 100 feet to perhaps 110 feet. The Life Safety Limit established by the Uniform Building Code and the San Francisco Building Code is 75 feet from the lowest point of building access to the finished floor of the uppermost story. Above this height limit, construction costs escalate due to more extensive fire safety requirements. The number of stories that can be accommodated within this height limit varies with the building program and structural system. For example, the maximum height under the limit would be seven stories at a floor height of 12.5 feet or six stories at 13 feet. The requirements of ground floor uses is also a factor. Other typical floor-to-floor heights are illustrated. Because of this restriction, it is unlikely that eight story buildings would be built in Mission Bay. To offset the increased costs of life safety, six or seven story buildings would have to jump, in whole or part, to approximately 12 stories or more.

Typical Floor-to-Floor Heights
and Resulting Building Heights

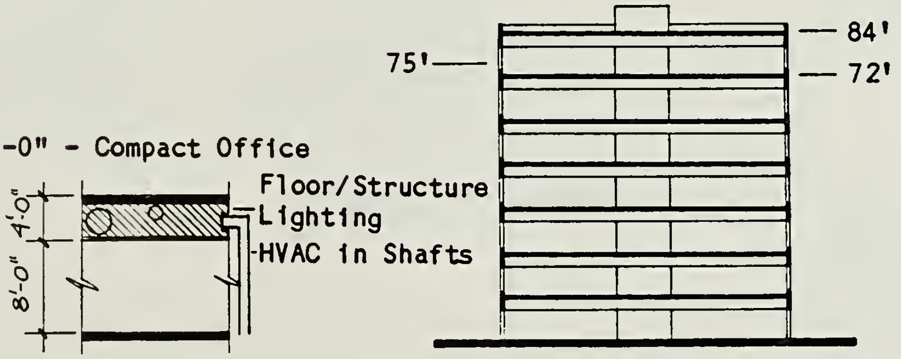
1. 15'-6" - Computer Facilities



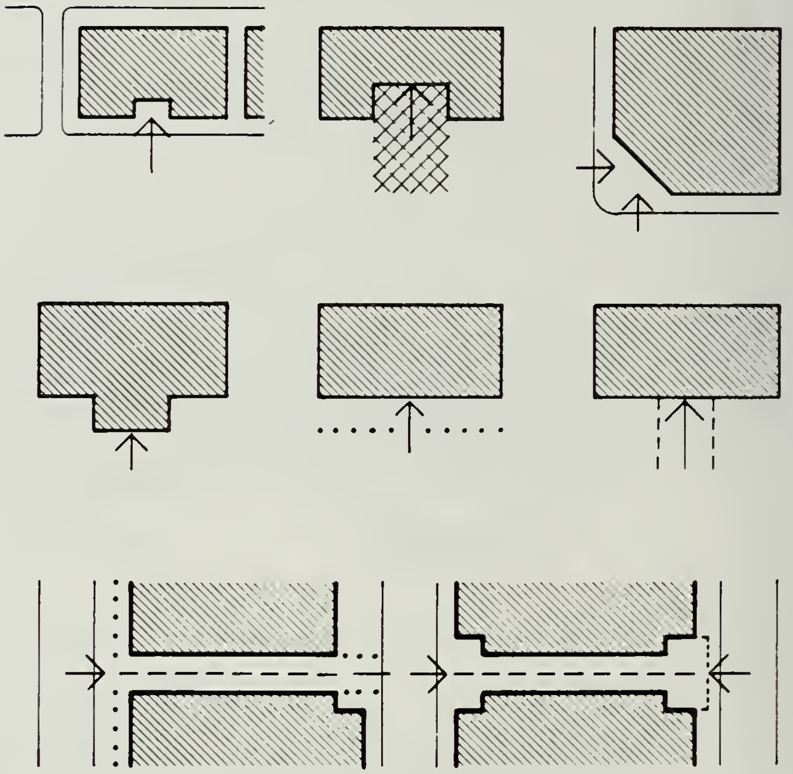
2. 13'-0" - Typical Office



3. 12'-0" - Compact Office

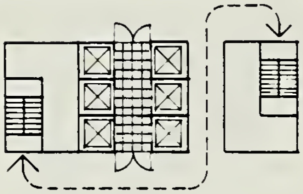


ENTRY FROM THE STREET: The primary street entry should be located in relation to the predominant street. Building configuration also affects entry placement; governing factors include the location of the lobbby and circulation core, and the presence of courtyards or open spaces.

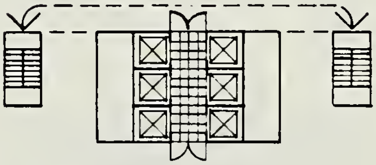


Entry Configurations

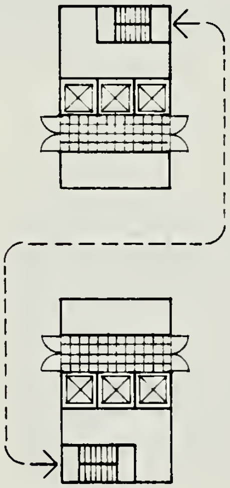
CENTRAL CORE VERTICAL CIRCULATION: Effective planning and servicing of multi-tenant office floors requires a centrally located and efficiently designed circulation core. Required elevators and code requirements for fire exiting will affect the form, location and number of office cores. Some typical layouts are illustrated.



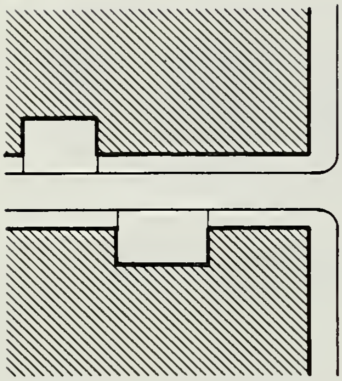
Single/Compact Core



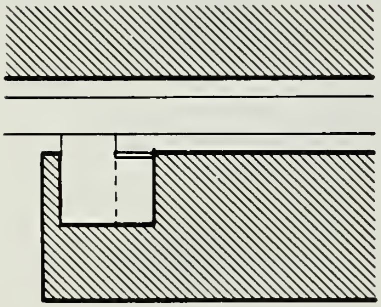
Single Core/
Disengaged Stairs



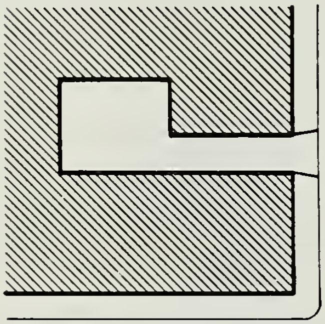
Multiple Cores



Alley



Service Bay

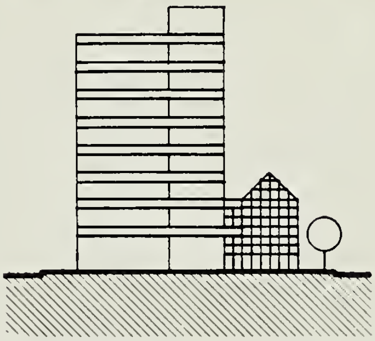


Service Court

SERVICE ACCESS: Service access should be located on secondary streets or mid-block alleys where it will not impede through traffic. The loading area must be adjacent to freight elevator or office core for efficient servicing of office floors. For large office buildings, an off-street service bay or service court is necessary for delivery of supplies, trash removal, and support of tenant improvement projects.

LOBBY FORM: Lobbies in the office buildings need not be large or elaborate, but they must fulfill certain functions. Typically, the lobby connects all interior public functions, including circulation core, retail, parking, and shared outdoor space. The lobby does require street frontage. A successful design will organize functional requirements within a strong aesthetic form and with fine detail.

Lobby Forms



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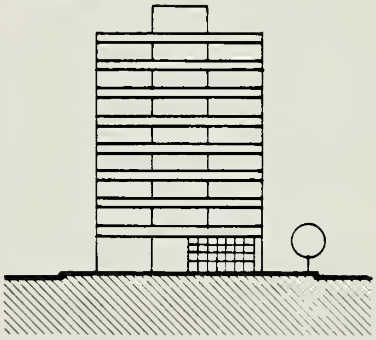
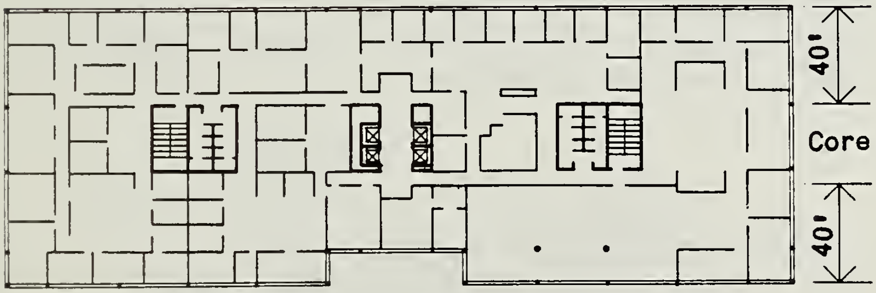
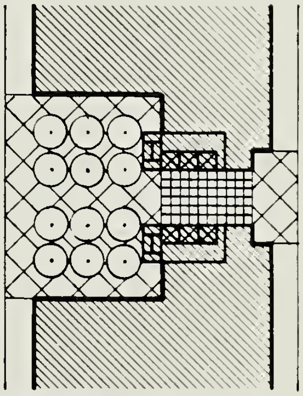


Enclosed

LEASING DEPTH DIMENSIONS: Leasing depth is the distance from the core or corridor wall to the exterior building wall. In an office wing without a core, it is the distance between the two exterior walls. For typical office layouts, the leasing depth from the core should range between 30' and 50'. A 30-foot depth allows natural daylight to penetrate the full depth. The diagram illustrates a typical multiple tenant floor plan with a 40-foot leasing depth accommodating various arrangements of private and open plan offices.



Leasing Depths of Typical Multiple Tenant Floor Plan



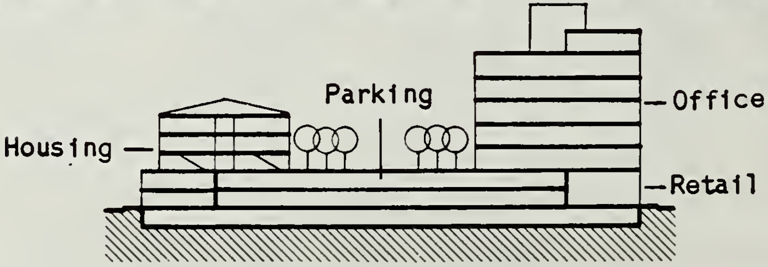
Lobby Between Street & Interior Courtyard

2.1.3 MIXED USE DESIGN FACTORS

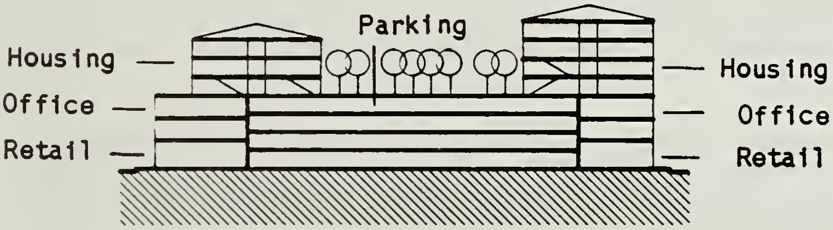
Mixed use projects do not fall into common prototypes like office buildings. Because the projects can be highly specialized and unique, it is difficult to make many generalizations about their design. Nonetheless, mixed use developments do offer technical and planning problems that are worth commenting on. In this study, the term "mixed use" means a mixture of office and housing uses with, perhaps, some ground floor retail.

METHODS OF ORGANIZATION: The two major uses can be organized together in two basic ways. They can be grouped on opposite sides of an open space, producing a horizontal organization. Or they can be stacked on top of each other producing a vertical organization. In either case, the organizing is usually done on top of a podium, beneath which is located retail and parking. Each method of organization has its own problems and opportunities.

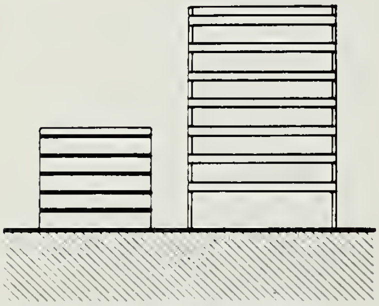
HORIZONTAL ORGANIZATION: This is the simpler organization in terms of technical issues. A major open space or a series of open spaces become the common elements in the mixed development. Each use can be optimized in shape and structural system because they do not touch each other or rest one on top of the other. Functional requirements, construction type differences, different floor-to-floor heights, and building security issues are all easily resolved. The difficult issues are the questions of the use of the open spaces. The housing needs private open space for the residents, which cannot be attained if the spaces are overlooked by or accessible to office workers.



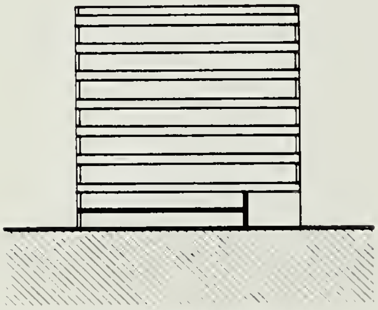
VERTICAL ORGANIZATION: There are numerous examples in San Francisco of vertical mixed use where housing and office are stacked vertically. By far the most common type involves one layer of office over a retail level at grade, forming a platform from which housing rises. Golden Gateway Commons, Opera Plaza, and St. Francis Place all exhibit this technique. If several layers of each use are stacked one above another, many technical issues have to be resolved. Fire and life safety, separate access and security, exiting, code requirements, choice of structural system, all become major technical design problems that can raise the cost of the project. Another type of vertical mixed use, which does not involve office use, is housing and its parking built over a public parking structure. This type of project can include retail uses at grade or not. An example of this type can be found in the City at 22nd and Bartlett Streets.



2.1.4 PARKING



Parking Above Grade
With Building Apart

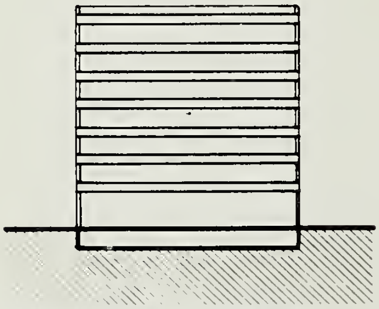


Parking Above Grade
With Building Over

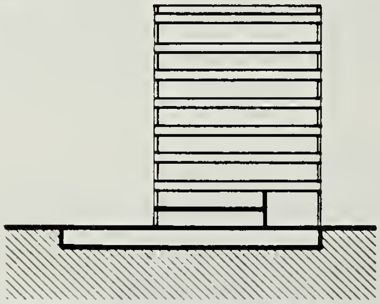
TYPES OF PARKING STRUCTURES: Because of poor soil conditions requiring expensive foundations and other costs, it will be appropriate to place most cars in above grade structures. General circulation standards suggest a maximum of about six levels of parking, to allow for ease of egress, although structures of 8 to 10 stores are possible with express ramping systems. On the north of channel blocks, a high water table (3 to 6 feet below grade) will economically permit only one partial underground level.

PARKING RATIOS: The ultimate parking ratio for Mission Bay is unkown at this time. The range may be from 1 car per 1,000 square feet to 1 car per 750 square feet. A parking ratio of 1:750 (1 car for every 750 square feet of office space or 1.33 cars per 1,000 square feet of office) has been used in this study. During early phases of development, this requirement may be met with surface parking on undeveloped parcels on the same or adjacent blocks. As development progress, parking structures will be added.

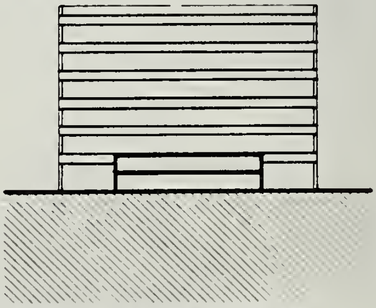
PARKING ACCESS: Parking access should be located on secondary streets or alleys so as not to obstruct through traffic. Right-hand turns for egress will facilitate exiting at peak traffic times. For large office buildings or parking structures, stacking lanes must be provided for commuter traffic.



Parking Below Grade
With Building Over



Parking Above & Below
Grade with Building Over



Parking Above Grade
Buried in Building

2.1.5 STRUCTURAL SYSTEMS

Among the major factors influencing the design of the office buildings in Mission Bay will be the choice of structural system. This choice will be, in turn, influenced by the building's shape, height, location and the development goals and timetable of the sponsor. Further, the economics of the time, cost and supply of labor and materials, will have strong impact. The purpose of this section is to generalize about some of the structural issues, while admitting that only limited "truth" can be gained, since so much of the structural decision will be dependent upon the precise building being designed at a specific point in time.

STEEL SYSTEMS: Most office buildings in San Francisco and the Bay Area have steel structural systems. The most common system is the moment resisting frame structure. This is the system that would most likely be used in low and mid-rise buildings in Mission Bay. The steel "tube" system, which places many closely spaced columns around the perimeter of the building, does not become efficient until building heights approach 25 stores or more.

CONCRETE SYSTEMS: Concrete frame office buildings are also built in the Bay area, although not as commonly. The advantages of concrete (if any) at a particular time for a particular project may be lower cost or faster completion time. The disadvantages have to do with flexibility of office layouts and floor-to-floor heights. A conventional concrete frame building would require shear walls which could reduce the leasing flexibility of the spaces. A "ductile" frame building would eliminate the need for shear walls but would require deeper beams and girders which could increase the floor-to-floor height.

FOUNDATION ISSUES: The poor soil conditions at Mission Bay will have a strong impact on the choice of system. All office buildings will be on pile foundations. These piles may extend very deeply through bay mud to a firm layer or, in some cases, friction piles may be possible. In the case of piles going to a rock layer, a concrete frame system would offer no great disadvantage over steel. However, in the friction pile situation, steel would be preferable since a steel building would weigh approximately half what a concrete building would weigh.

SEISMIC ISSUES: Earthquake issues may erase the acceptibility of concrete in a bearing pile situation. The period of the bed rock would be 0.25 to 0.35 seconds. An 8-story concrete building would have a similar period which might create dangerous resonance in a major earthquake. Steel, on the other hand, has a much longer period of 1.2 seconds, giving it an advantage over concrete.

WATER TABLE ISSUES: The water table below the office sites in Mission Bay is only 3 feet to 6 feet below grade. This reduces the feasiblity of underground construction for parking or basement level uses. Any excavation into the water table area would require sheet piling to protect against the lowering of the water table under adjacent properties.

STRUCTURAL BAY SIZES: The column spacing for office buildings over underground parking is generally in the 28 to 30 foot range. Without the influence of the parking, some spans might be increased to approximately 36 feet. These distances are within the normal limits of both concrete and steel systems.

FLOOR-TO-FLOOR HEIGHT: The choice of structural system and the span between columns determines the depth of the beams which, in turn, has a strong effect on floor-to-floor height. For instance, using 18" steel beams, which will work for a 30 foot span, a total floor thickness (including plenum) of 3'-10" is possible. With an 8'-2" clear ceiling height, the total floor-to-floor dimension 12'-0" is possible. The diagrams show other variations.

2.1.6 CONSTRUCTION COSTS

A general discussion of the cost of building office and mixed use structures in Mission Bay north of the Channel necessarily includes the implications of the deep bay mud underlying the surface of the site. The soil conditions, as reported by Dames and Moore in their various reports, have dramatic cost implications because of the difficulty in achieving adequate bearing, resisting seismic loads, and the need to compensate in the foundation design for the down drag on the piles. Another special study in this series gives details of the soil conditions.

Other factors with cost implications include the anticipated high water table (estimated at from 3 feet to 10 feet below grade by Dames and Moore) which increases construction costs for any below-grade structures, and the cost of life safety requirements for buildings with floor levels at elevations higher than 75 feet above grade.

The following table of percentage increases for these and other factors which affect the cost of construction in Mission Bay has been developed in consultation with Williams and Burrows Builders and Construction Managers. The figures are rough estimates of the magnitude of 1986 cost premiums which might be paid for various alternative development schemes. The cost premium figures are not cummulative.

PARKING

Base Cost: For an above grade parking structure, 180 feet x 220 feet x 6 levels = 240,000 square feet, open with no mechanical ventilation, no special design treatment or landscaping, 60 foot spans, 90° parking, with a spread footing on-grade foundation costing $13 per GSF:

$24/GSF

Add for foundation: Pile foundation through bay mud to sand lens located approximately 50 feet down of sufficient thickness to provide friction for piles:

+4%

or, pile foundation through bay mud to bedrock, approximately 125 feet down:

+25%

Add for below grade construction: For one level of parking below grade with mechanical ventilation:

+33%

and, for one level below grade that is also half-way below the water table such that dewatering is required (for instance, if the water table is at -5 feet and the parking level is at -10 feet):

+8%

or, instead of one full level below grade, one level of parking partially below grade (approximately 3 feet down), above the water table with no mechanical ventilation or dewatering required:

+10%

Add for structure: Parking levels over which other buildings or a landscaped roof are placed requiring a change from simple precast concrete 60 foot spans to 30 foot x 30 foot poured-in-place column grid:

+18%

Add for landscaping: Landscaping at the perimeter, in the ground at the base and in detachable planters on spandrels at each level:

+2%

and landscaped roof with major trees, turf, shrubs, drainage and irrigation:

+15%

and extra level of the structure for a landscaped roof without parking on it:

+17%

and structural premium, mostly for seismic loads, of significant landscaping on the roof:

+10%

Add for exterior architectural finishes: Good quality skin on spandrels and columns, masonry and architectural concrete:

+5%

OFFICE

Base Costs: For the shell cost with no tenant allowance, spread footings at grade, below the life safety limit, with skin cost assumed to be $26 per square foot (at the level of quality of 1/2 GFRC @ $29 per surface sf (ssf), 1/2 glass @ $19 per ssf)*:

$66 per gsf (1986 costs)**

* Skin cost as a percent of total base building costs decreases as the size of the floor plate increases, for example:

25,000 sf per floor x 7 floors = 175,000 sf, 3.0 gsf per 1 sf of skin.
35,000 sf per floor x 7 floors = 245,000 sf, 3.5 gsf per 1 sf of skin.
50,000 sf per floor x 7 floors = 35,000 sf, 4.3 gsf per 1 sf of skin.

** Base cost varies with the height of the building. For steel structures, the following table applies:

3 stories = $45 per sf
5 stories = $50 per sf
6 stories = $63 per sf
8-10 stories = $69 per sf
10-16 stories = $72 per sf

For concrete structures of the same heights, the base cost would be about 5% lower than steel structures. For the purposes of the examples which follow, we have chosen for a 7-story building the base cost of $66 per gsf.

Add for life safety: For buildings with floor levels at elevations higher than 75' above grade, the life safety requirements outlined in the Code Factors section of this report apply. the extra costs include electrical, HVAC, plumbing and fire protection equipment, elevators, and stairs:

+8%

Add for taller buildings: Buildings 8 to 10 stories, due to increased structure and elevator costs:

+5%

and buildings 11 to 16 stories:

+4%

Add for foundations: For pile foundation through bay mud to sand lens located approximately 50 feet down of sufficient thickness to provide friction for piles:

6-7 story building: +4.5%

12-13 story building: +2.5%

or, pile foundation through bay mud to bedrock, approximately 125 feet down:

6-7 story building: +25%

12-13 story building: +13%

For all floor plate sizes, the percentage increases in foundation costs are the same.

Add for parking: For parking under office buildings, as a general rule, do not consider transfer floors for different grids between office and parking levels; they are expensive and inefficient. Use percentages for below grade parking and for 30x30 column grid from the discussion of parking costs above.

Examples: This information may be used to look at the general cost implications of various parking and office development strategies; for example, to take a condition which occurs in several of the office and mixed-use prototypes in this report:

Examples #1:

A separate parking structure of 6 levels - base cost:	$24.00/gsf
with one level below grade - +33% of base cost:	+8
with that one level 5' below the water table - +8% of base cost:	+2
with piles to bedrock - 25% of base cost:	+6
with perimeter landscaping - +2% OF base cost:	+0.50

	$40.50/gsf

Example #2:

A 7-story office building below the life safety limit - base cost:	$66.00/gsf
with piles to bedrock - +23.1% of base cost:	+15

	$81.00/gsf

Example #3:

A 10-story office building over a
2-level, above grade parking podium:

OFFICE:

7-story office building: base cost:	$66.00/gsf
with life safety requirements: +8% of base cost:	+5
with cost increase for 10-story building: +5% of base cost:	+3
with cost increase for foundation for 10-story office plus 2-story parking: +13% of office base cost:	+9

	$83.00/gsf

and

PARKING:

above grade, 6-level parking structure: base cost:	$24.00/gsf
with cost decrease for 2-level parking structure: -16%	-4
with cost increase for 30'x30' structural grid: +18% of base cost:	+4

	$24.00/gsf

2.1.7 OFFICE BUILDING CODE ANALYSIS

The following code analysis is taken from the California Building Code 1982, and the San Francisco Building Code 1984. The provisions of the general requirements would apply to all office buildings. The Tall Buildings requirements would apply to any office buildings in Mission Bay exceeding 6 or 7 stories in height. These requirements add considerable cost, which can only be recouped by prorating it over a much taller building than 8 stories.

OFFICE REQUIREMENTS - GENERAL

(Occupancy Group B, Section 2)

Construction, Height and Allowable Area

* Basement levels may be used for parking, mechanical and storage functions only.
* Storage areas in excess of 1,000 sf must be separated from public areas by one (1) hour construction.

Light, Ventilation and Sanitation

* Natural Light - Area of glazed exterior openings required = 1/10 floor area.
* Natural Ventilation - Area of exterior openings required = 1/20 floor area.

OFFICE REQUIREMENTS - TALL BUILDINGS

(Occupancy Group B, Section 2)

(Buildings with floor levels which are more than 75 feet above ground level)

Construction

* Must be Type I, Fire-Resistive.

Automatic Sprinkler System

* Mandatory in San Francisco.
* 20 minute water supply must be provided on-site, with sufficient capacity to serve both sprinkler system and standpipes.

Fire Egress

* All required exit stairways and passageways must be smokeproof enclosures.
  - (2) hour fire-resistive enclosure continuous from top floor to ground level building exit.
  - Includes a smokeproof vestibule, or access from an exterior balcony, at each floor.
  - Vestibule may be ventilated naturally (16 sf of exterior wall area min.) or mechanically.
* All stairway doors normally locked from the stairway side must have automatic unlocking devices triggered by smoke or heat sensors.
* Emergency telephones must be provided in all stairways where doors are normally locked from stairway side.

Smoke Detection Systems

* Smoke sensors are required in:
  - All mechanical rooms.
  - HVAC main supply ducts.
  - HVAC ducts which penetrate walls or floors with fire-resistive ratings of two (2) hours or more.

Smoke Control

* HVAC system must be capable of flushing all smoke contaminated air to the exterior when triggered by smoke or heat sensors.
* HVAC system must be designed to minimize movement of smoke within the building, and vent it to the exterior, by either method below:
  - Pressure differential between floors - system must flush air to exterior on (3) floors (including fire floor) between (2) pressurized floors.
  - Isolation by smoke dampers - Smoke dampers must close, and air supply to fire floor must be shut down. In addition, natural ventilation must be provided at the rate of 20 sf for every 50 lineal feet of exterior building wall. Ventilation may be accomplished with either remotely operable panels/windows, or fixed tempered glazing which can be knocked out.

Central Control Station

* For Fire Department operations.
* Contains fire, mechanical system, and elevator alarms, signals and controls, as well as internal and external communication systems.
* Must be continually manned, or be connected to a manned, remote station, or the Fire Department.

Alarm and Communication System

- * Voice Alarm System - alert signal followed by voice instructions.
- * Public Address System - provided for all public spaces and tenant spaces larger than 1000 sf
- * Fire Department Communications System - from central control station to all elevators, elevator lobbies, and entries to exit stairways.

Standby Power, Lighting and Emergency Systems

- * Power - Six (6) hour standby supply for all fire and exiting operations. Eight (8) hour standby supply for fire pumps.
- * Lighting - standby lighting for all egress routes, central control room, and mechanical equipment rooms.
- * Emergency Systems - standby exit signage lighting and elevator cab lighting.

PARKING GARAGE REQUIREMENTS
(Occupancy Group B, Section 2)

Construction

- * Must be Type I or Type II (noncombustible materials throughout).

Vertical Height

- * 7'-0" minimum clearance at all levels.
- * 8'-2" minimum clearance where handicapped parking required.

Ventilation

- * Natural - garage must be open on two (2) or more sides, with open area not less than 40% of garage perimeter. Open area must equal at least 50% of exterior wall surface at each tier to qualify.
- * Mechanical (including all below-grade levels) - 1.5 cubic feet/minute minimum air change per gross square foot of floor area. (Alternate method - 14,000 cfm/operating vehicle, not less than 2.5% of garage capacity or one (1) vehicle, whichever is greater.)

2.2 OFFICE AND MIXED USE - EXISTING PROJECTS

The following office and mixed use projects were analyzed in order to establish criteria for developing Mission Bay prototypes.

Location	Project
San Francisco	Levi's Plaza
San Francisco	Rincon Center
San Francisco	1700 California Street
Concord	Bank of America Operations Building C
Concord	Bank of America Operations Building D
Concord	Concord Gateway Towers
Concord	Concord Airport Plaza
Concord	One Concord Center
Walnut Creek	California Plaza
Berkeley	Golden Bear Center
Glendale	Cabot, Cabot & Forbes
Glendale	Glendale Square
Glendale	550 North Brand

2.2 Existing Projects

EXISTING OFFICE PROJECTS SUMMARY

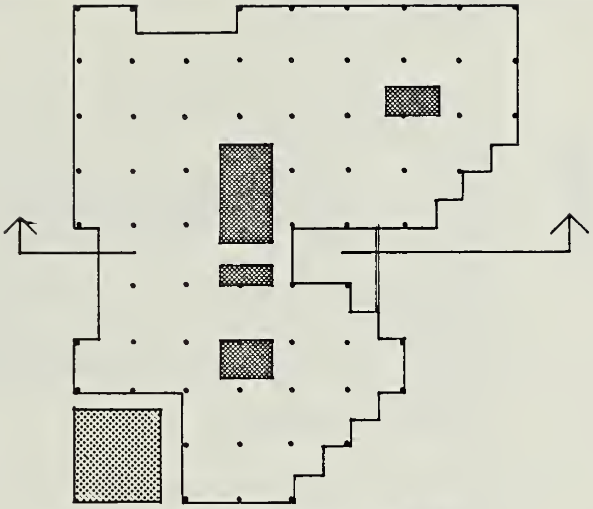
PROJECT	LOCATION	USES	GROSS SF AREA	TYP. FLOOR AREA SF	LEASE DEPTH	TYP. FLOOR-TO-FLOOR HT.	PARKING	STRUCTURAL SYSTEM
Levi's Plaza	San Francisco	Office over Retail	760,000	50,000 per building	45'-80'	12'-0"	Below Grade	Steel 30x30 bays
1700 California	San Francisco	Housing over Office over Retail	88,500	20,000	22'-40'	12'-6"	Above and below grade 1.7/1000	Steel 27x27 bays
Rincon Center	San Francisco	Housing over Office over Retail	176,000	32-56,000	36'-55'	12'-0"	Below Grade 0.29/1000	Concrete 27-6 x 27-6 bays
Bank of America Building C	Concord	Office	157,100	43,100	30'-60'	14'-0"	Above & Below Grade Adjacent Structure 2.7/1000	Steel Long Span 32x64 bays
Bank of America Operations Building D	Concord	Computer Facilities & Food Services	354,000	59,000	155'	15'-6"	Above & Below Grade Adjacent Structure 2.7/1000	Steel 32x32 bays
Concord Gateway Towers	Concord	Office	320,000	36,000	55'	12'-0"	Surface	Concrete
Concord Airport Plaza	Concord	Office	372,000 186,000 per building	31,000 per building	35'	13'-0"	Surface & Adjacent Structure 2.75/1000	Concrete 32x32 bays
One Concord	Concord	Office over Retail	310,000	24,700	50'	12'-0"	Below Grade	Steel 25-35 bays
California Plaza	Walnut Creek	Office over Retail	330,000	24-55,000	30'-60'	13'-0"	Below Grade & Podium 2.4/1000	Steel Braced Frame 30x30 bays
Golden Bear Center	Berkeley	Office over Retail	135,000	35,000	35'-45'	13'-0"	Below Grade & Surface 1.8/1000	Steel Moment Frame 28x32 bays
Cabot, Cabot & Forbes	Glendale	Office over Retail	296,000	22-37,000	40'-63'	12'-9"	Adjacent Structure 2.8/1000	Steel 22-6 x 37-8 bays
Glendale Square	Glendale	Office over Retail	616,000 308,000 per building	28,000 per building	36'-68'	12'-0"	Adjacent Structure 2.9/1000	Steel 20x40 bays
550 North Brand	Glendale	Office over Retail	304,000	12-19,000	30'-48'	13'-0"	Above and below grade 2.8/1000	Steel 30x40 bays

OFFICE AND MIXED USES

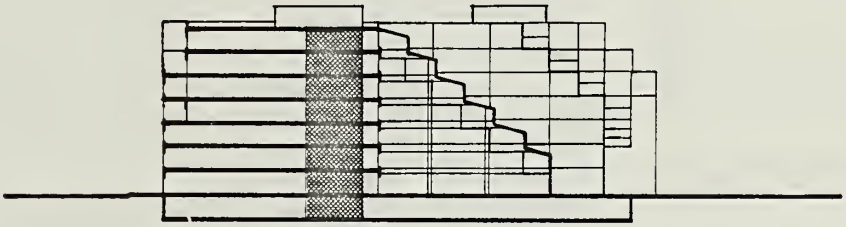
2.2 Existing Projects

PROJECT:	**LEVI'S PLAZA** San Francisco, CA
DEVELOPER:	BJEW Associates, San Francisco, CA
ARCHITECT:	Hellmuth, Obata & Kassabaum, Inc.
COMPLETED:	1981
OTHER USES:	Retail - 35,000 sf on ground level of Buildings B and ISC.
TYPE:	Compact
TENANTS:	Suitable for small to large tenants.
GROSS SF-OFFICE:	760,000 in 4 buildings. 350,000 (Building A)
TYPICAL FLOOR SF:	50,000 (Building A)
OFFICE FLOORS:	7 (Building A)
FIRST FLOOR HEIGHT:	13'-5"
TYPICAL FLOOR HEIGHT:	12'-0"
LEASE DEPTHS:	45' - 80'
ENTRY:	All four buildings oriented toward central plaza. Entry to Building A defined by break in rectilinear form and glass atrium, terraced back at each floor level.
VERTICAL CIRCULATION:	5 passenger elevators and 1 exit stairway in central core. 1 remote service elevator and 2 remote exit stairways.
HORIZONTAL CIRCULATION:	Z-corridor.
PARKING:	150 spaces below-grade (Building A).
SERVICE:	2 truck bays (Building A). 1 truck bay (Building C). 1 loading area (Building B).
STRUCTURE:	Steel - 30' x 30' bays.
IMAGE:	
Form:	Articulated low-rise blocks with corners and entries stepped to address central plaza.
Materials:	Red brick and grey tinted glass.
Windows:	Punched and Ribbon.
Quality:	Grouping and scale of buildings around central landscaped plaza creates pleasant pedestrian environment. Massing and materials are in keeping with historical character of adjacent buildings.

LEVI'S PLAZA



Typical Tenant Floor Level



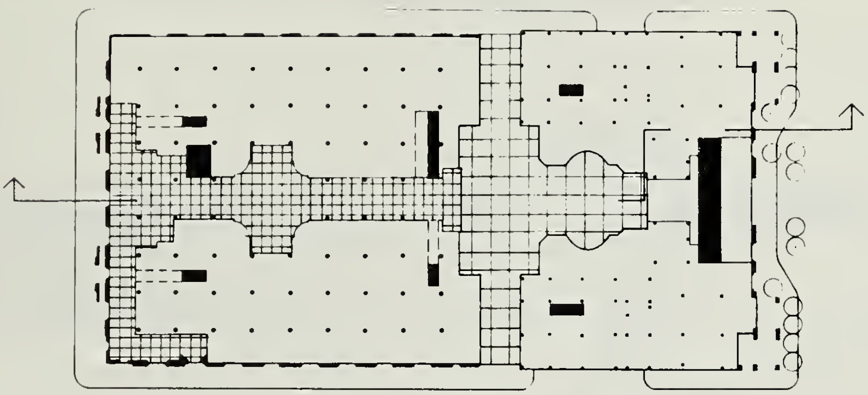
Section

OFFICE AND MIXED USES

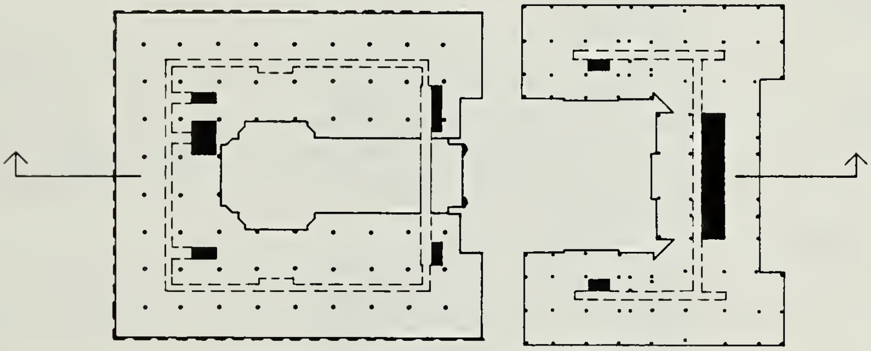
2.2 Existing Projects

PROJECT:	**RINCON CENTER** San Francisco, CA
DEVELOPER:	Perini Land & Development Co., San Francisco, CA
ARCHITECT:	Pereira Associates
COMPLETED:	1988
OTHER USES:	Housing - 1,159,000 sf total. Two towers, each with 579,500 sf on 15 floors above office and retail. Retail - 65,000 sf on ground floor.
TYPE:	Courtyard.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	176,000
TYPICAL FLOOR SF-OFFICE:	32,000 - 56,000
OFFICE FLOORS:	5
FIRST FLOOR HEIGHT:	15'-0" (Retail only)
TYPICAL FLOOR HEIGHT:	12'-0"
LEASE DEPTHS:	36'-55' (Core to perimeter)
ENTRY:	Major entry defined by colonnade, glass canopy and monumental glass arch. Leads to low foyer, courtyard and retail arcade.
VERTICAL CIRCULATION:	2 office cores, 1 with four passenger elevators and 1 with 2 passenger elevators and 1 exit stair. 3 remote exit stairs.
HORIZONTAL CIRCULATION:	Continuous loop corridor.
PARKING:	400 spaces below grade for office use.
SERVICE:	8 truck bays below grade.
STRUCTURE:	Concrete - 27'-6" x 27'-6" Bays.
IMAGE:	
Form:	Heavy office/retail base supports crystalline glass residential towers.
Materials:	White precast concrete and grey glass.
Windows:	Ribbon and punched.
Quality:	Retail/office base, courtyards, rich materials and patterns complement existing Art Deco post office. Courtyards provide pleasant views for pedestrians and office tenants.

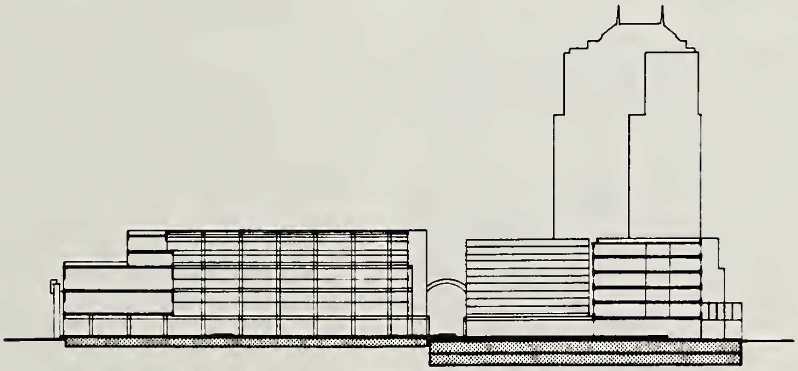
RINCON CENTER



Ground Level Plan



Typical Tenant Floor Level

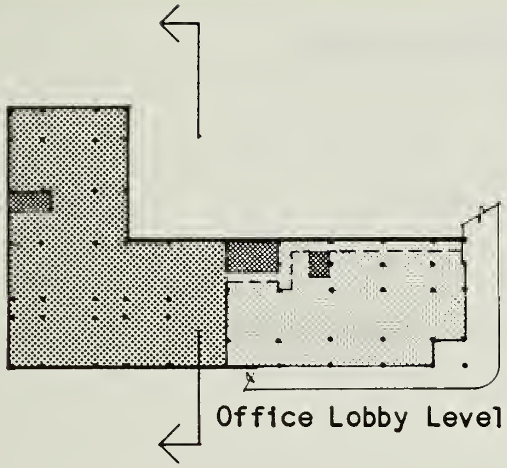


Section

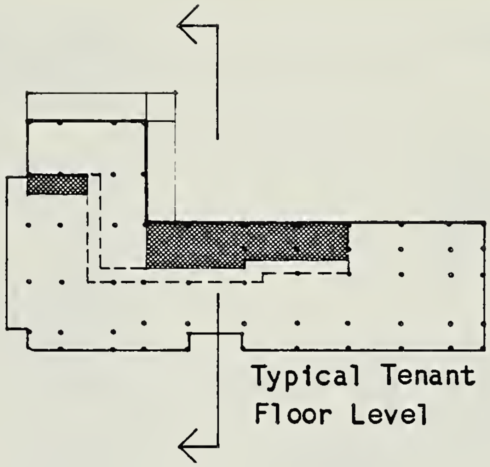
2.2 Existing Projects

PROJECT:	**1700 CALIFORNIA STREET** San Francisco, CA
DEVELOPER:	
ARCHITECT:	Jorge de Caseda
COMPLETED:	1986
OTHER USES:	Housing - 46 units on 5 levels above office and retail. 63,000 sf total. Retail - 6,700 sf on ground level fronting major boulevard.
TYPE:	Linear.
TENANTS:	Suitable for small and medium-sized tenants.
GROSS SF-OFFICE:	88,500
TYPICAL FLOOR SF:	20,000
OFFICE FLOORS:	5
FIRST FLOOR HEIGHT:	12'-6"
TYPICAL FLOOR HEIGHT:	12'-6"
LEASE DEPTHS:	22' - 40'
ENTRY:	Notch in building and two story recess faced with granite define major entry.
VERTICAL CIRCULATION:	Central core with 2 office passenger elevators, 2 housing passenger elevators, 1 passenger elevator to parking, and 1 exit stairway. 1 remote exit stairway.
HORIZONTAL CIRCULATION:	L-corridor.
PARKING:	200 spaces on 5 levels (3 below grade). For office, housing and retail use. 1.7 cars/1000 sf GBA.
SERVICE:	1 truck bay.
STRUCTURE:	Steel - 27' x 27' bays.
IMAGE:	
Form:	Articulated block with stepped terraces and expressed columns.
Materials:	Off-white GFRC panels with green reflective glass. Dark grey and red granite at office and retail entries.
Windows:	Ribbon.
Quality:	Articulation and terracing add skyline interest. Office entry is rather tight and awkward. No pedestrian amenities.

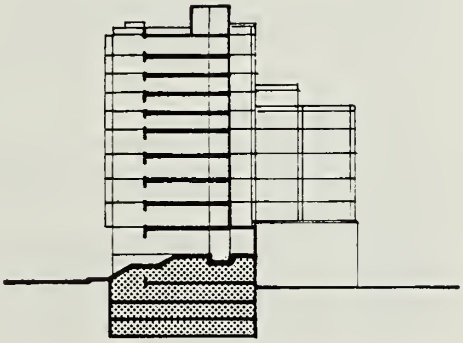
1700 CALIFORNIA STREET



Office Lobby Level



Typical Tenant Floor Level



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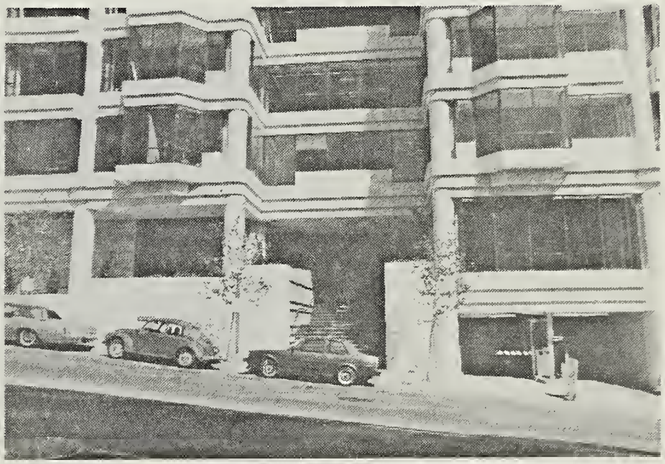
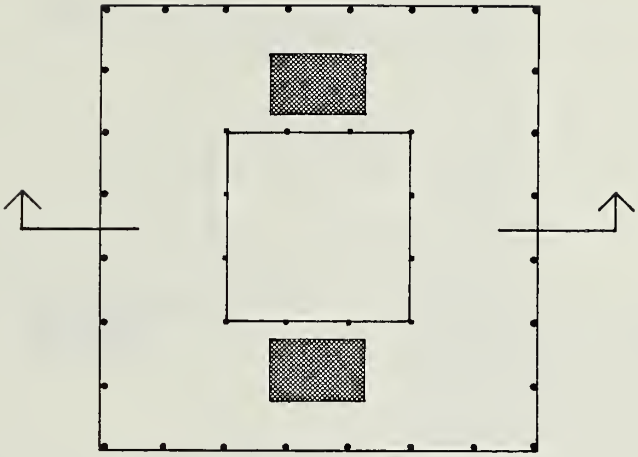
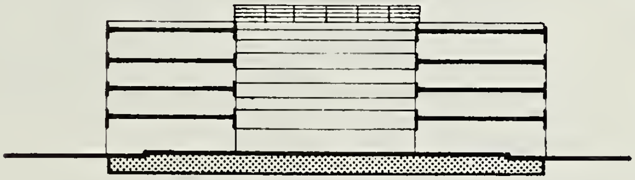


PROJECT:	**BANK OF AMERICA CONCORD CENTER** Building C Concord, CA
DEVELOPER:	Bank of America
ARCHITECT:	Skidmore, Owings & Merrill
COMPLETED:	1986
OTHER USES:	None.
TYPE:	Courtyard.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	157,100
TYPICAL FLOOR SF-OFFICE:	43,100
OFFICE FLOORS:	4
FIRST FLOOR HEIGHT:	18'-0"
TYPICAL FLOOR HEIGHT:	14'-0"
LEASE DEPTHS:	30'-60' (Core to perimeter)
ENTRY:	2 entries at opposite ends of central axis open into atrium. Entries defined by landscape and recessed doors.
VERTICAL CIRCULATION:	2 passenger elevators in atrium. 1 service elevator. 2 exit stairs at opposite sides.
HORIZONTAL CIRCULATION:	Open plan.
PARKING:	2,700 spaces below grade and in adjacent structure. For use by 4 office buildings.
SERVICE:	2 truck bays.
STRUCTURE:	Steel long span - 32' x 64' bays.
IMAGE:	
Form:	Unarticulated block with continuous first floor arcade.
Materials:	White metal panels with red trim and grey glass.
Windows:	Ribbon.
Quality:	Landscaped atrium creates pleasant views for interior spaces.

BANK OF AMERICA - Building C



Typical Tenant Floor Level

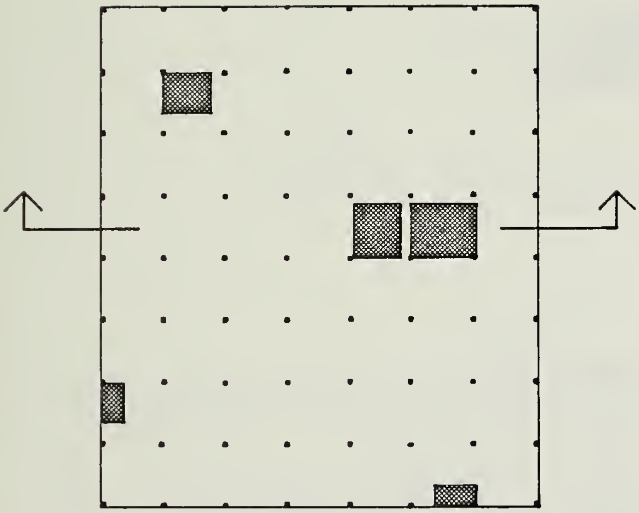


Section

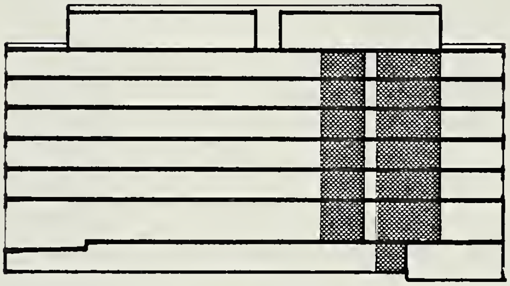
2.2 Existing Projects

PROJECT:	**BANK OF AMERICA CONCORD CENTER** Operations Building D Concord, CA
DEVELOPER:	Bank of America
ARCHITECT:	Skidmore, Owings & Merrill
COMPLETED:	1986
OTHER USES:	Food Services - 20,000 sf on ground level.
TYPE:	Compact.
TENANTS:	Suitable for large computer tenants.
GROSS SF-OFFICE:	354,000
TYPICAL FLOOR SF-OFFICE:	59,000
OFFICE FLOORS:	6
FIRST FLOOR HEIGHT:	22'-0"
TYPICAL FLOOR HEIGHT:	15'-6" (Computer floors)
LEASE DEPTHS:	32' - 128' (Core to perimeter - computer use)
ENTRY:	Recessed entry, located at corner of building, is defined by bosque of trees.
VERTICAL CIRCULATION:	Central core with 5 passenger elevators and 2 service elevators. 4 remote exit stairs.
HORIZONTAL CIRCULATION:	Open plan.
PARKING:	2,700 spaces serving 4 buildings, below grade and in adjacent structure. 2.7 cars/1,000 sf GBA.
SERVICE:	6 truck bays.
STRUCTURE:	Steel - 32' x 32' bays.
IMAGE:	
Form:	Unarticulated block.
Materials:	White metal panels with red trim and grey glass.
Windows:	Ribbon.
Quality:	Amenities provided by surrounding landscaped campus. Building is out of scale with surrounding urban setting.

BANK OF AMERICA - Building D



Typical Tenant Floor Level



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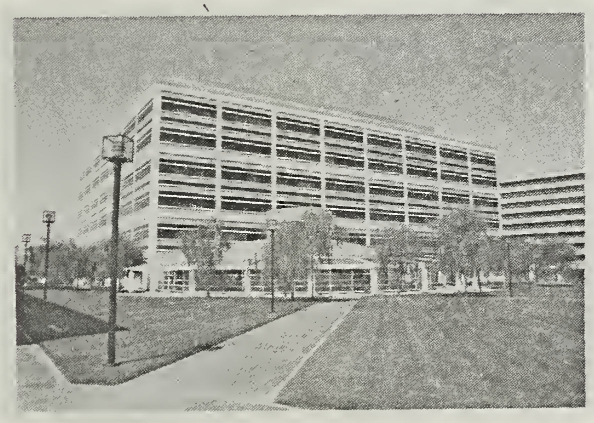
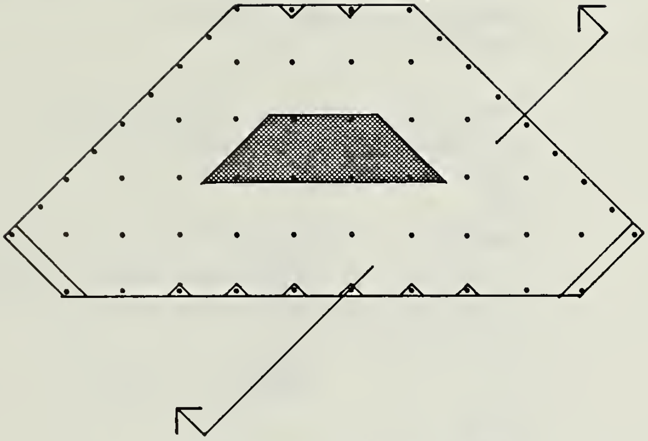


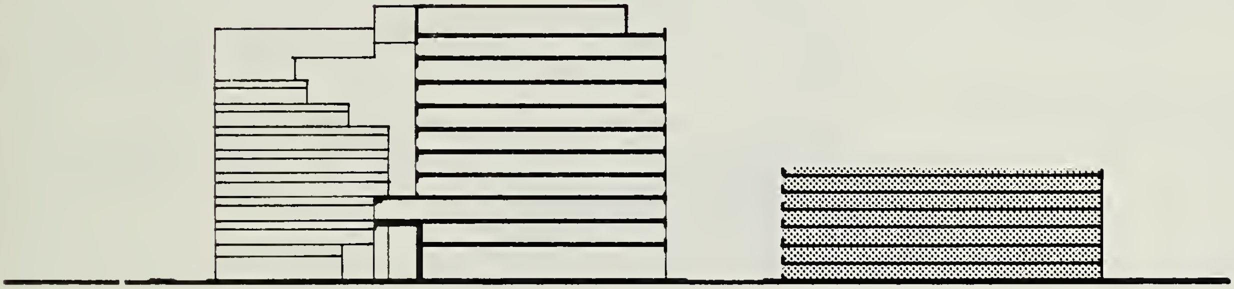
2.2 Existing Projects

PROJECT:	**CONCORD GATEWAY TOWERS** Concord, CA
DEVELOPER:	Albert D. Seeno Co.
ARCHITECT:	Leason Pomeroy Associates
COMPLETED:	1986
OTHER USES:	None.
TYPE:	Compact.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	320,000
TYPICAL FLOOR SF:	36,000
OFFICE FLOORS:	10
FIRST FLOOR HEIGHT:	16'-8"
TYPICAL FLOOR HEIGHT:	12'-0"
LEASE DEPTHS:	55' (Core to perimeter)
ENTRY:	Entries announced by building form and materials. Two entries on central axis with wide lobby extending through building.
VERTICAL CIRCULATION:	Central core with 5 passenger elevators, 1 passenger/service elevator, and 2 exit stairs.
HORIZONTAL CIRCULATION:	Continuous around core.
PARKING:	Surface. Number of spaces unknown.
SERVICE:	2 truck bays.
STRUCTURE:	Concrete.
IMAGE:	
Form:	Stepped terraces located symmetrically about short axis define entries.
Materials:	White precast concrete and green reflective glass.
Windows:	Ribbon.
Quality:	Symmetrical form, careful use of materials and architectural detailing add clarity and visual interest.

CONCORD GATEWAY TOWERS



Typical Tenant Floor Level

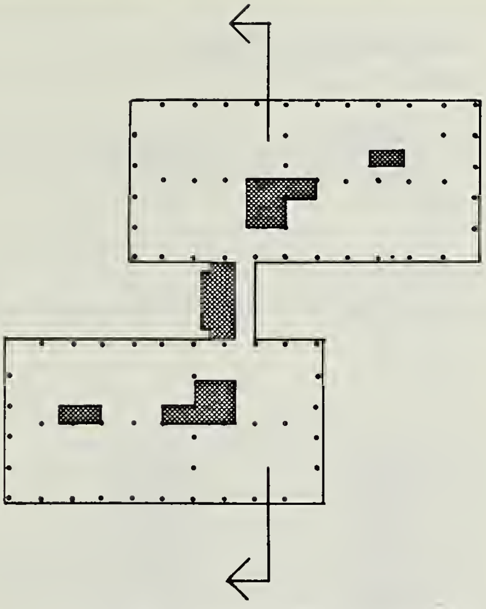


Section

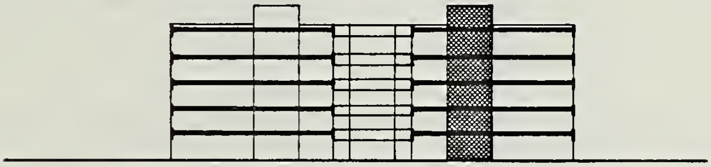
2.2 Existing Projects

PROJECT:	**CONCORD AIRPORT PLAZA** Concord, CA
DEVELOPER:	Reynolds & Brown, Concord, CA
ARCHITECT:	Hallenbeck-Chamorro & Associates
COMPLETED:	1985
OTHER USES:	None.
TYPE:	Campus. 2 buildings with 2 pods each.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	372,000 (186,000/building)
TYPICAL FLOOR SF:	31,000/building
OFFICE FLOORS:	6
FIRST FLOOR HEIGHT:	14'-2"
TYPICAL FLOOR HEIGHT:	13-0"
LEASE DEPTHS:	35' (Core to perimeter)
ENTRY:	Via courtyard to external elevator core serving two separate pods.
VERTICAL CIRCULATION:	External core with 2 passenger elevators serves 2 pods. 1 freight elevator and 1 exit stair per pod.
HORIZONTAL CIRCULATION:	Z-corridor serves 2 pods via connecting bridge.
PARKING:	1,020 spaces, surface parking and adjacent structure. 2.75 cars/1,000 sf GBA.
SERVICE:	3 truck bays per building (6 total).
STRUCTURE:	Concrete - 32' x 32' bays.
IMAGE:	
Form:	Unarticulated block with continuous first floor arcade.
Materials:	Grey precast concrete and grey glass.
Windows:	Ribbon.
Quality:	Campus plan with courtyards provides pleasant setting. Single core used by 2 pods maximizes perimeter glass and views. Unarticulated elevations have no character.

CONCORD AIPRORT PLAZA



Typical Tenant Floor Level



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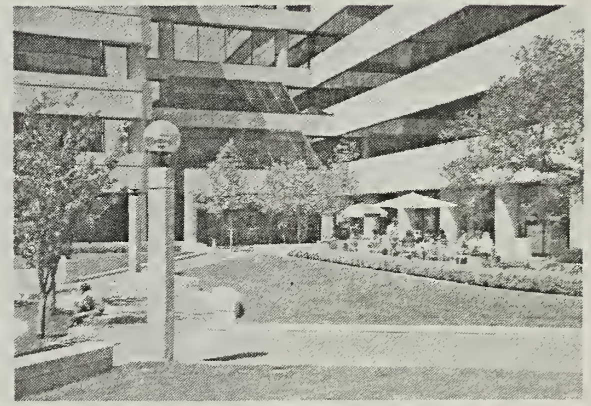
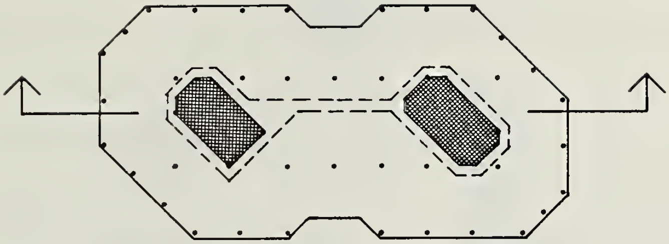


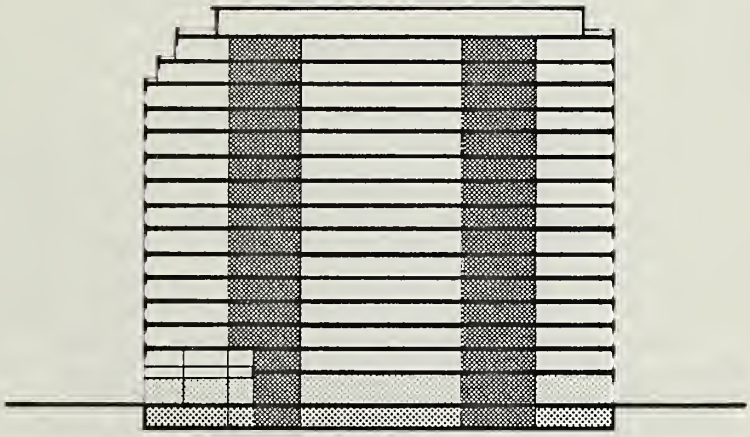
2.2 Existing Projects

PROJECT:	**ONE CONCORD CENTER** Concord, CA
DEVELOPER:	Tishman Realty Corporation of California
ARCHITECT:	Hoover Associates
COMPLETED:	1986
OTHER USES:	Retail - 14,000 sf on ground level.
TYPE:	Compact.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	310,000
TYPICAL FLOOR SF:	24,700
OFFICE FLOORS:	14
FIRST FLOOR HEIGHT:	14'-0" (Retail only)
TYPICAL FLOOR HEIGHT:	12'-0"
LEASE DEPTHS:	50' (Core to perimeter)
ENTRY:	
VERTICAL CIRCULATION:	Off-center core with 6 passenger elevators and 1 exit stair. 1 exit stair and service elevator at opposite end.
HORIZONTAL CIRCULATION:	Internal linear corridor.
PARKING:	Below grade. Number of spaces unknown.
SERVICE:	1 truck bay.
STRUCTURE:	Steel - 25' x 35' bays.
IMAGE:	
Form:	Lozenge shaped plan with stepped terraces at upper levels.
Materials:	Brick on plaster panels with grey glass.
Windows:	Ribbon.
Quality:	Building form makes it difficult to appreciate street level amenities which include plaza, fountain and landscaping.

ONE CONCORD CENTER



Typical Tenant Floor Level

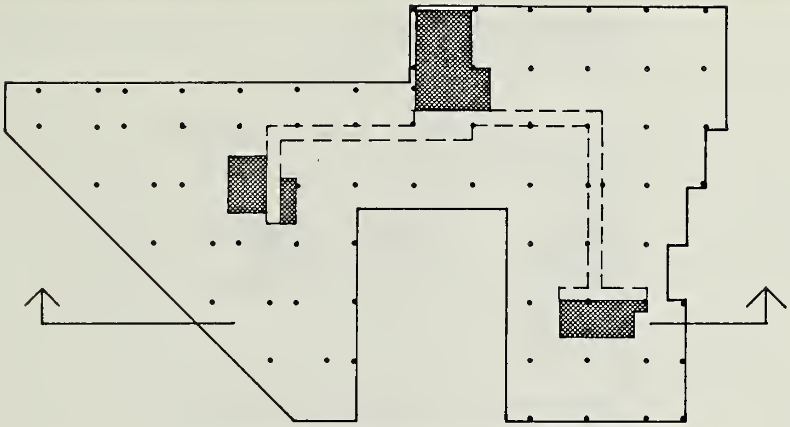


Section

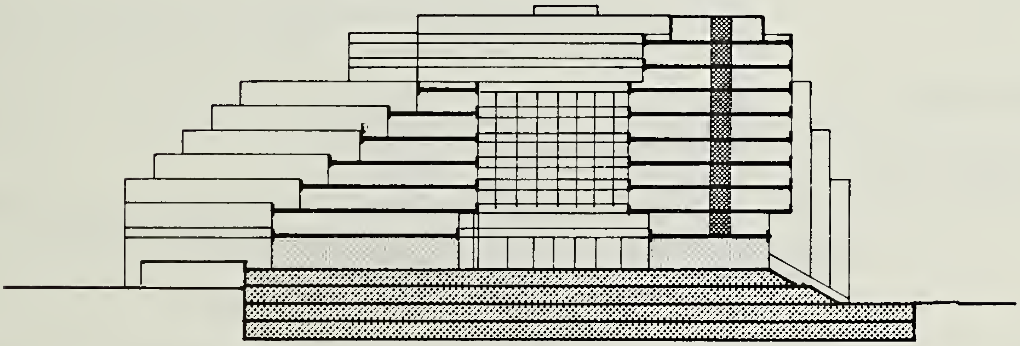
2.2 Existing Projects

PROJECT:	**CALIFORNIA PLAZA** Walnut Creek, CA
DEVELOPER:	Cygna Development
ARCHITECT:	ELS/Architects (Schematic Design) Kaplan, McLaughlin, Diaz
COMPLETED:	1985
OTHER USES:	Retail - 40,000 sf on ground level.
TYPE:	Courtyard.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	330,000
TYPICAL FLOOR SF:	24-55,000
OFFICE FLOORS:	9
FIRST FLOOR HEIGHT:	16'-0" (Retail only)
TYPICAL FLOOR HEIGHT:	13'-0"
LEASE DEPTHS:	30'-60' (Core to perimeter)
ENTRY:	Street entry emphasized by building form and X-bracing. Secondary entries to podium level and courtyard from adjacent projects. Retail is entered from street and podium levels.
VERTICAL CIRCULATION:	2 office cores with 4 passenger elevators each, including 1 passenger/service elevator. 2 parking shuttle elevators. 4 exit stairs.
HORIZONTAL CIRCULATION:	U-corridor.
PARKING:	900 spaces on 4 levels below podium level. For use by office and retail.
SERVICE:	3 truck bays.
STRUCTURE:	Steel braced frame - 30' x 30' bays.
IMAGE:	
Form:	Stepped terraces reduce bulk and define entries.
Materials:	Granite and reflective grey glass.
Windows:	Strip windows at upper levels, punched openings at lower levels and retail.
Quality:	Retail, courtyard and fountains add life. Stepped form and architectural detailing add visual interest. Too dense for site and surrounding town.

CALIFORNIA PLAZA



Typical Tenant Floor Level



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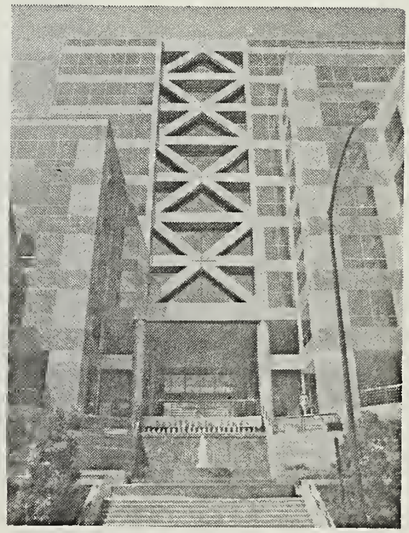
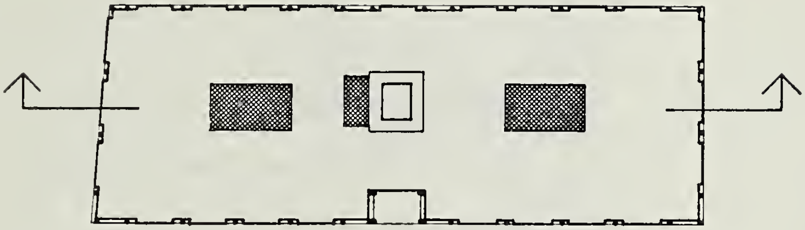


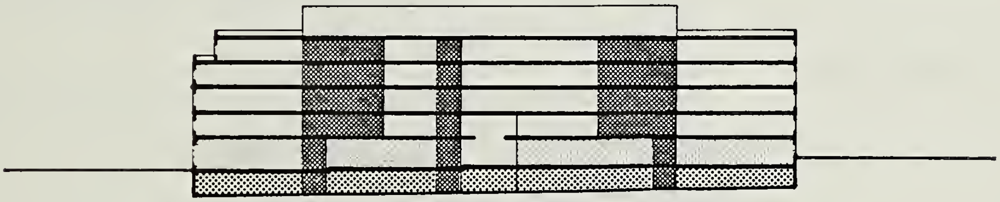
2.2 Existing Projects

PROJECT:	**GOLDEN BEAR CENTER** Berkeley, CA
DEVELOPER:	Carl N. Swenson Development Co., San Jose, CA
ARCHITECT:	ELS/Architects
COMPLETED:	1986
OTHER USES:	Retail - 30,000 sf on ground level.
TYPE:	Linear.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	135,000
TYPICAL FLOOR SF:	35,000
OFFICE FLOORS:	4
FIRST FLOOR HEIGHT:	15'-6" to 17'-6" (Retail only)
TYPICAL FLOOR HEIGHT:	13'-0"
LEASE DEPTHS:	35'-45' (Core to perimeter)
ENTRY:	Entry on central axis, defined by building form and change of materials. Leads to 2-story elevator lobby.
VERTICAL CIRCULATION:	Central core with 3 passenger elevators. 2 remote exit stairs.
HORIZONTAL CIRCULATION:	Z-corridor.
PARKING:	300 spaces on 2 levels (1 below grade). For use by office and retail. 1.8 cars/1,000 sf GBA.
SERVICE:	2 truck bays.
STRUCTURE:	Steel moment frame - 28' x 32' bays.
IMAGE:	
Form:	Recessed top floor and change of materials reduce mass.
Materials:	Precast GFRC panels with granite aggregate at upper floors. Granite panels at first floor. Reflective grey glass.
Windows:	Ribbon, passing behind column covers.
Quality:	Terraced upper level, articulated columns and retail arcade add interest and reduce scale.

GOLDEN BEAR CENTER



Typical Tenant Floor Level

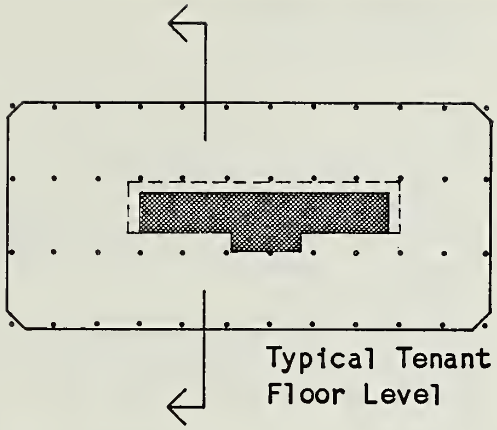


Section

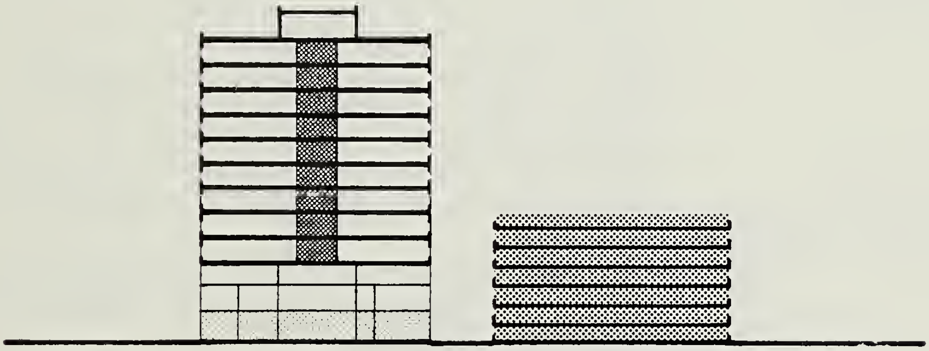
2.2 Existing Projects

PROJECT:	**CABOT, CABOT & FORBES** Glendale, CA
DEVELOPER:	Cabot, Cabot & Forbes, Los Angeles, CA
ARCHITECT:	Gensler & Associates
COMPLETED:	1983
OTHER USES:	Retail - 31,000 sf on ground level.
TYPE:	Linear.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	296,000
TYPICAL FLOOR SF:	22,000-37,000
OFFICE FLOORS:	11
FIRST FLOOR HEIGHT:	16'-0" (Retail only)
TYPICAL FLOOR HEIGHT:	12'-9"
LEASE DEPTHS:	40'-63' (Core to perimeter)
ENTRY:	Two story entry leads to 3 story atrium.
VERTICAL CIRCULATION:	Central core with 5 passenger elevators, 1 passenger/service elevator and 2 exit stairs. 1 remote exit stair.
HORIZONTAL CIRCULATION:	Linear corridor.
PARKING:	927 spaces in adjacent structure. For use by office and retail. 2.8 cars/1,000 sf GBA.
SERVICE:	Exterior truck service area.
STRUCTURE:	Steel - 22'-6" x 37'-8" bays.
IMAGE:	
Form:	Rectilinear with stepped landscaped terraces.
Materials:	Blue-grey precast concrete with blue-grey glass.
Windows:	Ribbon.
Quality:	Articulated street level columns are dwarfed by long unarticulated facade above. Terraced upper levels add skyline interest.

CABOT, CABOT & FORBES



Typical Tenant Floor Level



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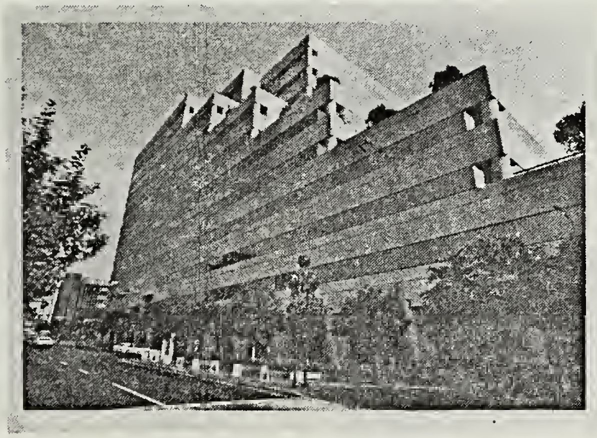
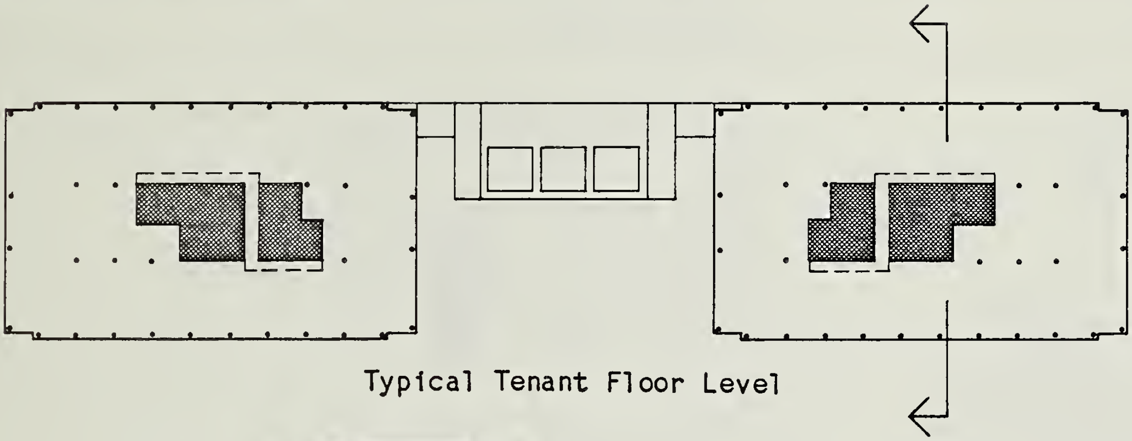


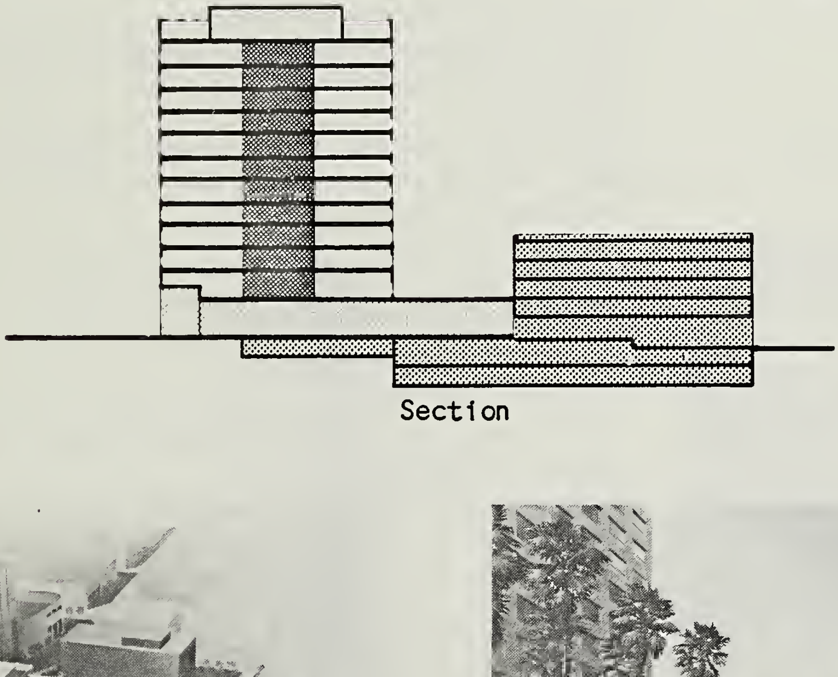
2.2 Existing Projects

PROJECT:	**GLENDALE SQUARE** Glendale, CA
DEVELOPER:	American Trading Real Estate Co., Inc., Baltimore, MD
ARCHITECT:	Langdon, Wilson, Mumper Architects
COMPLETED:	Undetermined.
OTHER USES:	Retail - 78,000 sf on ground level.
TYPE:	Compact, campus. 2 buildings with connecting retail arcade.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	616,000 (308,000/building)
TYPICAL FLOOR SF:	28,000/building
OFFICE FLOORS:	11
FIRST FLOOR HEIGHT:	21'-0"
TYPICAL FLOOR HEIGHT:	12'-0"
LEASE DEPTHS:	36'-68' (Core to perimeter)
ENTRY:	Retail entries from street and arcades. Office entry on central office building axis. No exterior identification except awning.
VERTICAL CIRCULATION:	Central core with 5 passenger elevators, 1 passenger/service elevator and 2 exit stairs.
HORIZONTAL CIRCULATION:	Z-corridor.
PARKING:	2,007 spaces on 5 levels (1 below grade) For use by office and retail. 2.9 cars/1,000 sf GBA.
SERVICE:	4 truck bays.
STRUCTURE:	Steel - 20' x 40' bays.
IMAGE:	
Form:	Rectilinear with stepped terraces at top.
Materials:	Red brick and sandstone with grey glass.
Windows:	Ribbon.
Quality:	Retail arcade and central plaza provide pleasant street level focus. Parking surrounded by retail at street level shows consideration for pedestrian environment. Bland elevations are uninteresting.

GLENDALE SQUARE



Typical Tenant Floor Level

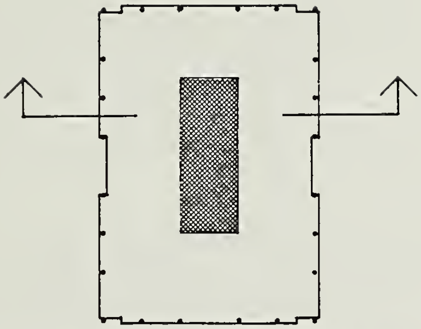


Section

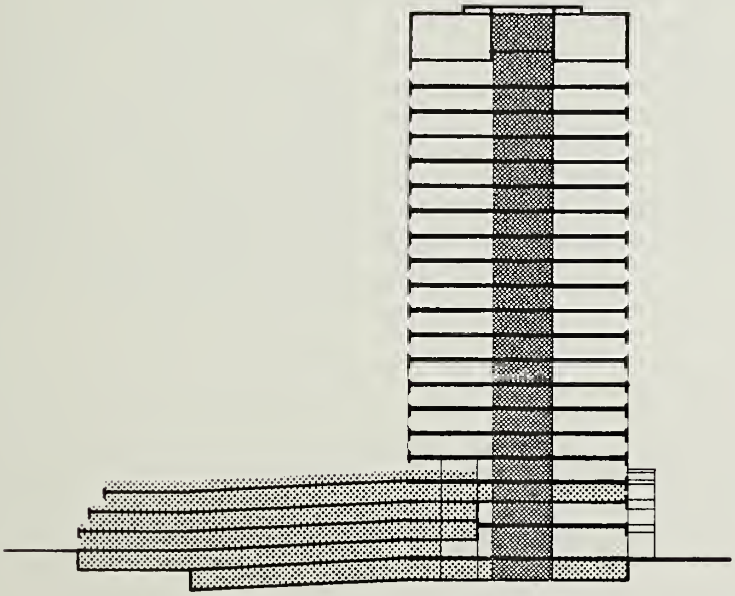
2.2 Existing Projects

PROJECT:	**550 NORTH BRAND** Glendale, CA
DEVELOPER:	Smith-Hricik Development Co., Century City, CA
ARCHITECT:	Helmuth, Obata and Kassabaum
COMPLETED:	1987
OTHER USES:	Retail - 5,600 sf on ground level.
TYPE:	Compact.
TENANTS:	Suitable for large and small tenants.
GROSS SF-OFFICE:	304,000
TYPICAL FLOOR SF:	11,600 - 18,700
OFFICE FLOORS:	17
FIRST FLOOR HEIGHT:	18'-2"
TYPICAL FLOOR HEIGHT:	13'-0"
LEASE DEPTHS:	30' - 48' (Core to perimeter)
ENTRY:	Notch in arcade and podium above define major entry. Two-story lobby opens into elevator vestibule.
VERTICAL CIRCULATION:	Central core with 6 passenger/service elevators and 2 exit stairs. 2 additional elevators behind core service parking levels.
HORIZONTAL CIRCULATION:	Open plan.
PARKING:	859 spaces on 6 levels (1 below grade) interlocked with office and retail.
SERVICE:	1 truck bay.
STRUCTURE:	Steel - 30' x 40' bays.
IMAGE:	
Form:	Articulated tower on parking/office podium with 2-story street arcade.
Materials:	Off-white concrete with pink granite and grey tinted glass.
Windows:	Ribbon.
Quality:	Building is well detailed, with articulated tower adding skyline interest. Integration of parking with office and retail levels allows use of entire site for parking without negatively impacting the major street. Arcade and retail band add life and encourage pedestrian traffic.

550 NORTH BRAND



Typical Tenant Floor Level



Section

2.3 MISSION BAY OFFICE & MIXED USE PROTOTYPES

The preceding design factors and analyses of existing projects have been taken into consideration in the design of prototype office and mixed-use schemes for Mission Bay. In addition, the prototypes have been geared to the particular sites suggested in the Mission Bay Choices Report as appropriate for office and mixed use development. These sites include several blocks north of the China Basin Channel between Third and Seventh Streets.

The long dimensions of these blocks are determined by the existing South-of-Market grid. The short dimensions result from probable widths and layouts for Townsend, King and Berry Streets. The block size used for the prototypes, 223' x 837', may be slightly different than the sizes of the blocks in the final plan; if so, the amounts of development and open space possible will differ as well.

The following chart summarizes the eight prototypes. The schemes are intended to be suggestions of directions which office and mixed use development might take. The drawings and accompanying verbal and numerical discriptions explore the implications of each scheme for open space, urban design, costs, parking configurations, building height and other factors. Some buildings are shown higher than eight stories to demonstrate the effect that height has on density. However, there is no agreement to permit such higher buildings at this time.

2.3 Prototypes

SUMMARY OF MISSION BAY OFFICE & MIXED USE PROTOTYPES

PROTOTYPE	GROSS LEASABLE AREA	PARKING	OPEN SPACE	TYPICAL FLOOR AREA
A - 4 Office Buildings, Low Rise	670,000 SF	One Separate, One Connected Above Grade Structures	25%	22,800 SF 25,000 SF 35,000 SF
B - 4 Office Buildings, Low Rise	690,000 SF	One Separate Above Grade Structure	25%	19,000 SF 40,000 SF
BB - 4 Office Buildings High & Low Rise	804,000 SF	One Separate Above Grade Structure, One 1/4 Blk. Level Below Grade	25%	19,000 SF 40,000 SF
C - 3 Office Buildings, Low Rise	800,000 SF	One Separate Structure, Below & Above Grade/One 1/2 Block Level Below Grade	17%	15,000 SF 42,000 SF

PROTOTYPE	GROSS LEASABLE AREA	PARKING	OPEN SPACE	TYPICAL FLOOR AREA
CC - 3 Office Buildings High & Low Rise	900,000 SF	One Separate Structure, Below & Above Grade/ One 1/2 Block Level Below Grade/ 2-Level Podium	17%	15,000 SF 35,000 SF 42,000 SF
D - 6 Office Buildings, Low Rise	800,000 SF	Two 3-Level Podiums @ -2' & Above Grade	15%	20,000 SF 21,500 SF 30,000 SF 40,000 SF
E - Mixed Use High & Low Rise	375,000 SF 237 DU	One Separate Structure Above Grade/ 2-Level Podium Above Grade	25%	13,000 SF 17,000 SF 19,000 SF 525 to 1500 SF/ Dwelling Unit
F - Mixed Use High & Low Rise	260,000 SF 534 DU	4-Level Podium Above Grade	10%	10,000 to 35,000 SF 525 to 1500 SF/ Dwelling Unit

2.3 Prototypes

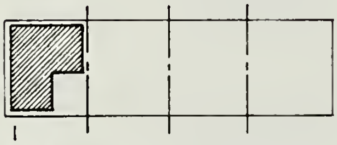
Prototype A

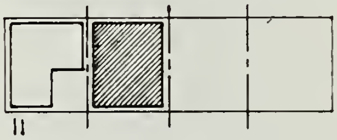
BLOCK SUBDIVISION: Quarter blocks

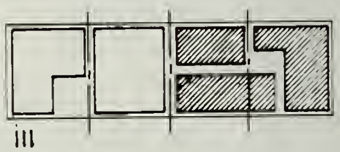
LOT COVERAGE/OPEN SPACE: 75% / 25%

SITING: Four buildings higher on north; lower parking structures and courtyards mid-block on south; three through-block pedestrian passages.

PHASING:
I. 245,000 sf office/surface parking.
II. 114,000 sf office/connected parking structure - 443 spaces.
III. 311,000 sf office/separate 497-space parking structure.







RELATIONSHIP TO GRADE: One parking level at -3'. All other buildings above grade. Open space at grade.

PARKING CONFIGURATION: One separate parking structure; one structure partially under office space. Total = 940 spaces @ 325 sf/space; 1.4 spaces per 1,000 sf office/retail.

TOTAL FLOOR AREA: 670,000 sf office with ground floor retail.

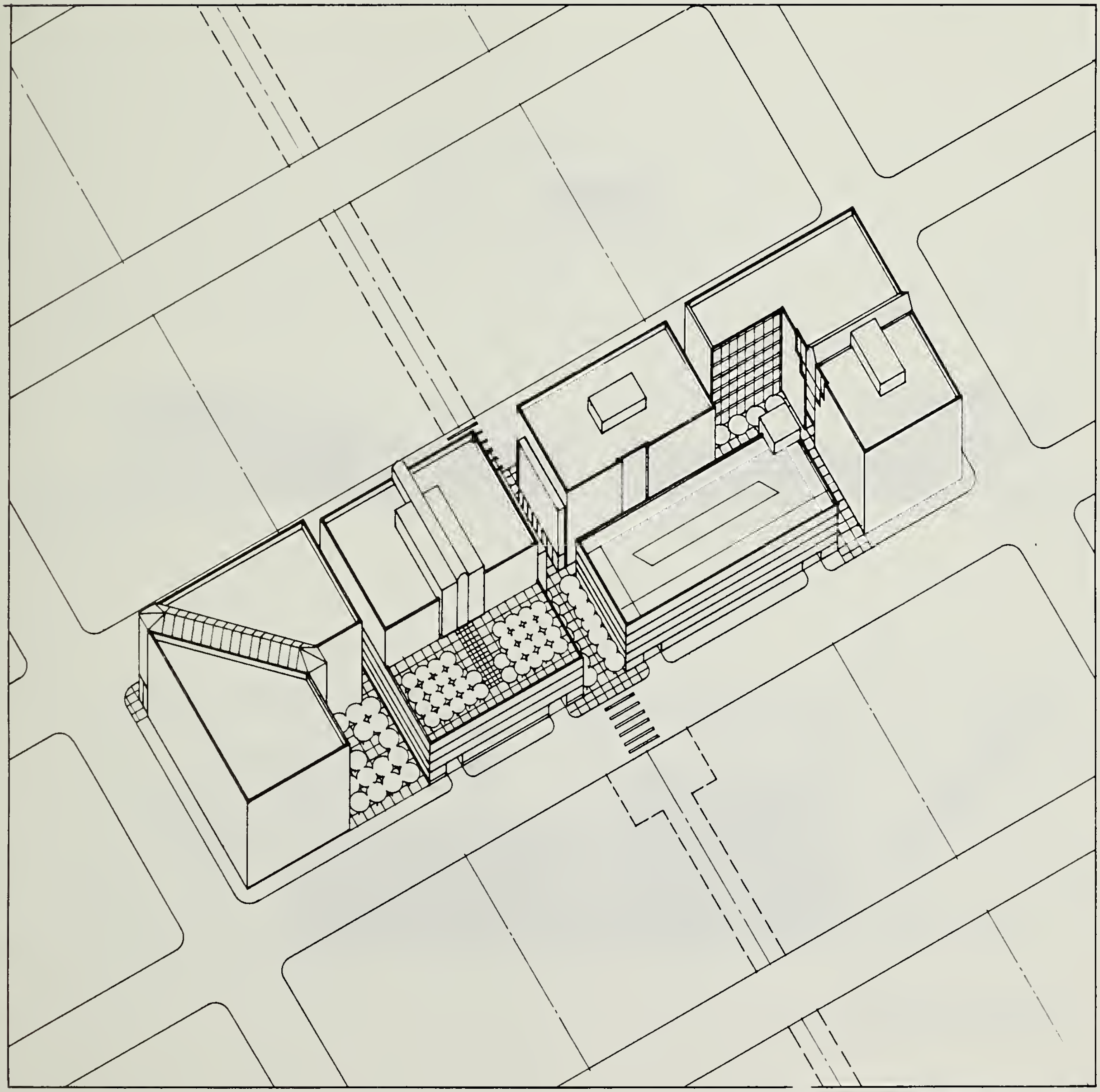
TYPICAL FLOOR PLATE AREA: 35,000 sf; 22,800 sf; 25,000 sf

BUILDING HEIGHT/FLOOR-TO-FLOOR: Building 1: 12'-6"; Buildings 2 & 3: 12'-0" over 15'-0" ground floor; Building 4: 13'-0". Parking: 9'-0".

LEASE DEPTHS: 45'-58'

SUMMARY COMMENTS: This prototype shows that when all parking is in structures above the Mission Bay water table, which means they are virtually on grade and above, the land area left for leasable and open space is limited. If for economy the buildings are held to heights under the life safety limit, 6 or 7 stories depending on floor-to-floor height, the resulting leasable floor area which can be achieved is 650 to 700,000 sf. Prototype A leaves 25% of the site as open space arranged in three through-block pedestrian passages connecting to public courtyards. Landscaping helps screen the centrally located parking structures from passersby.

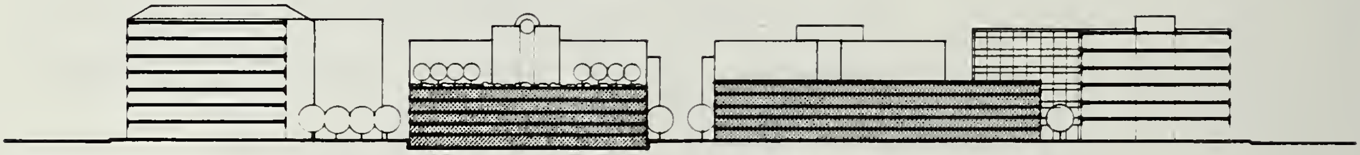
Prototype A



Axonometric View

2.3 Prototypes

Prototype A



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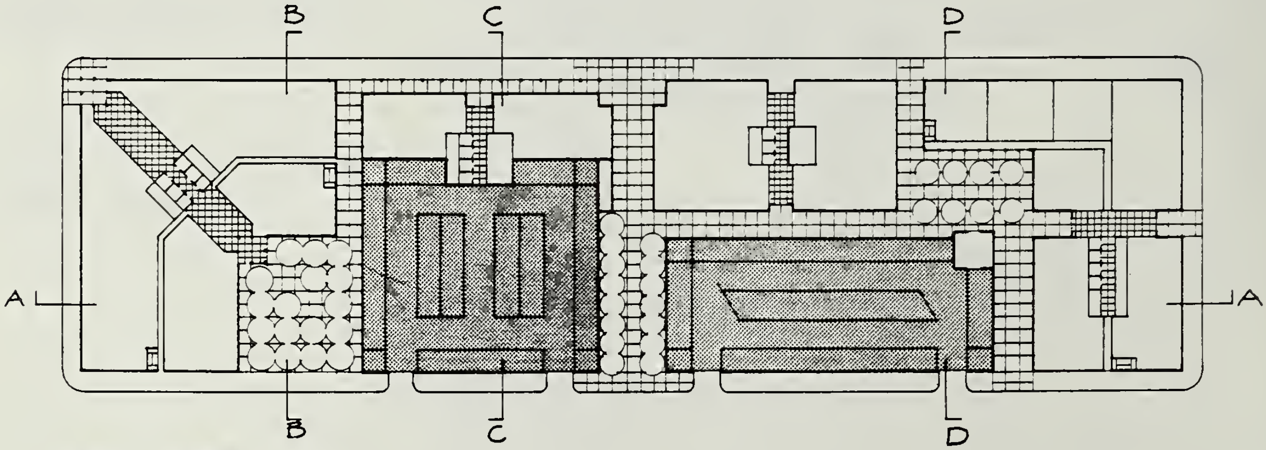
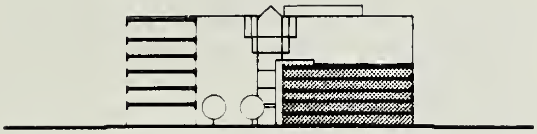


Ground Level Plan

Prototype A



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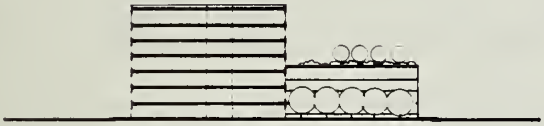

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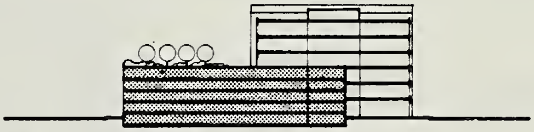

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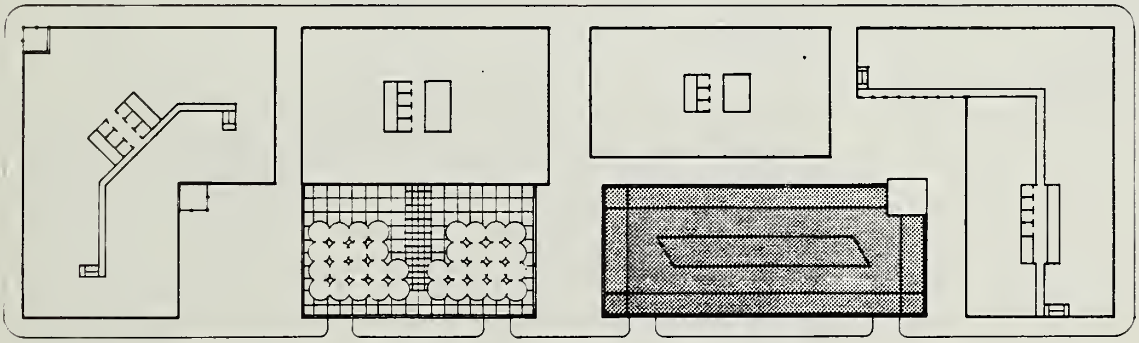
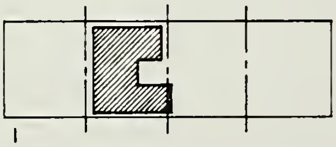


Typical Floor Plan

2.3 Prototypes

Prototype B

BLOCK SUBDIVISION: Quarter blocks
LOT COVERAGE/OPEN SPACE: 75% / 25%
SITING: Four buildings forming courtyards connected to a public plaza on the south. Parking structure on west end of block.
PHASING:
  I. 285,000 sf office/surface parking.
  II. 138,000 sf office/separate parking structure - 984 spaces.
  III. 266,000 sf office.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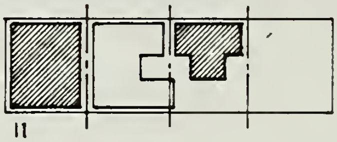
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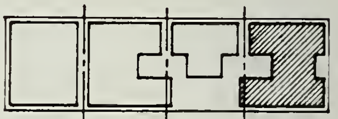

III

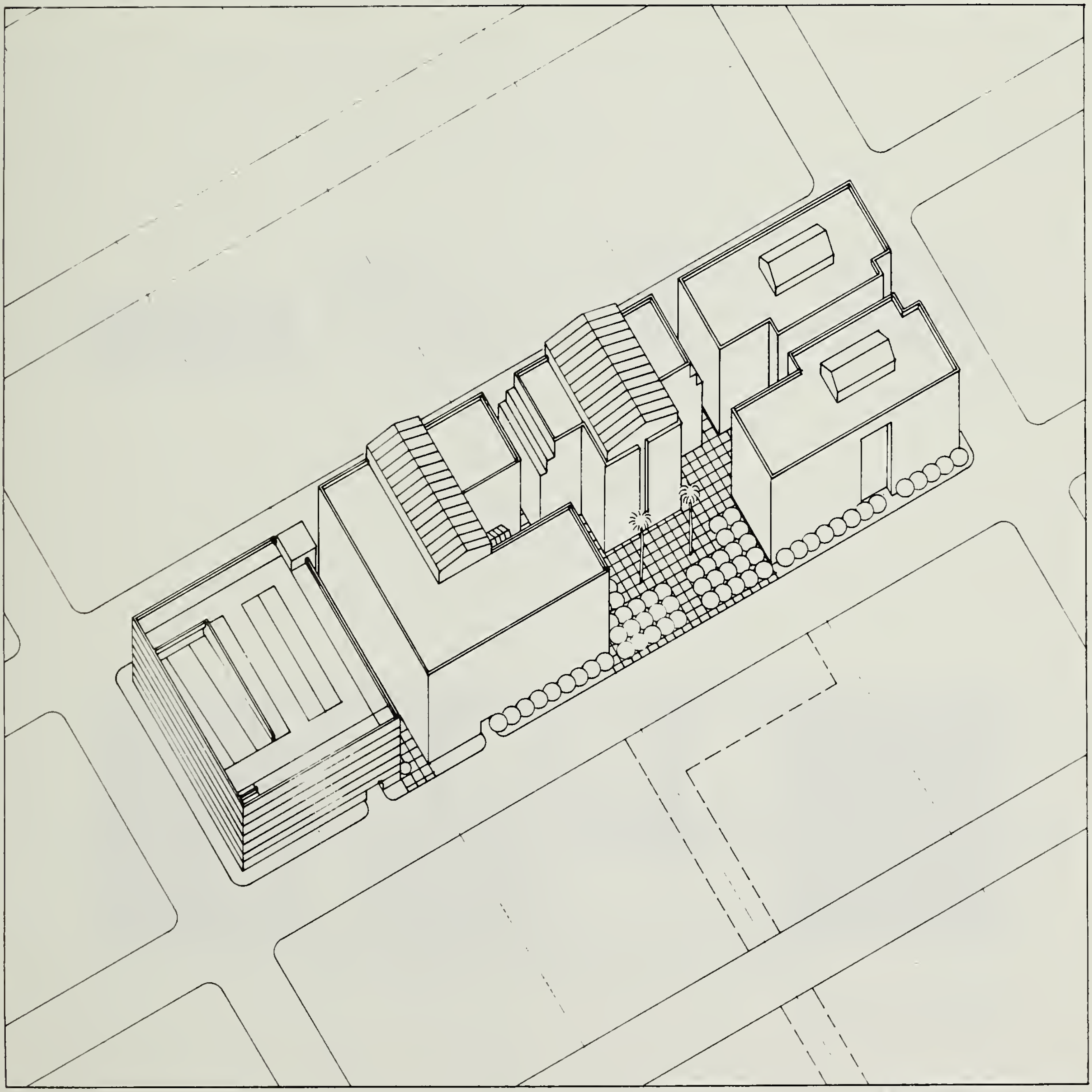
RELATIONSHIP TO GRADE: All parking is in a separate parking structure having 1/2 level below grade and 7 levels above grade. All other buildings are above grade. Open space is at grade.
PARKING CONFIGURATION: One separate structure of 8 levels, 984 spaces @ 325 sf/space; 1.4 spaces per 1,000 sf office/retail.

TOTAL FLOOR AREA: 690,000 sf

TYPICAL FLOOR PLATE AREA: 19,000 sf; 19,700 sf; 40,700 sf
BUILDING HEIGHT/FLOOR-TO-FLOOR: Office: 12'-6"; Parking: 9'-0".
LEASE DEPTHS: 37'-50'

SUMMARY COMMENTS: Prototype B creates 690,000 sf of office space in a group of four buildings under the life safety limit. The buildings are sited both to hold the urban street edge and to leave 25% of the site open for a sunny public plaza connected to courtyards and through- block passages. This arrangement provides a pleasant outlook from offices as well as an attractive pedestrian environment. The parking structure serves to buffer the offices from incompatible uses to the west such as freeway ramps, but the parking is somewhat distant from offices on the east end of the block.

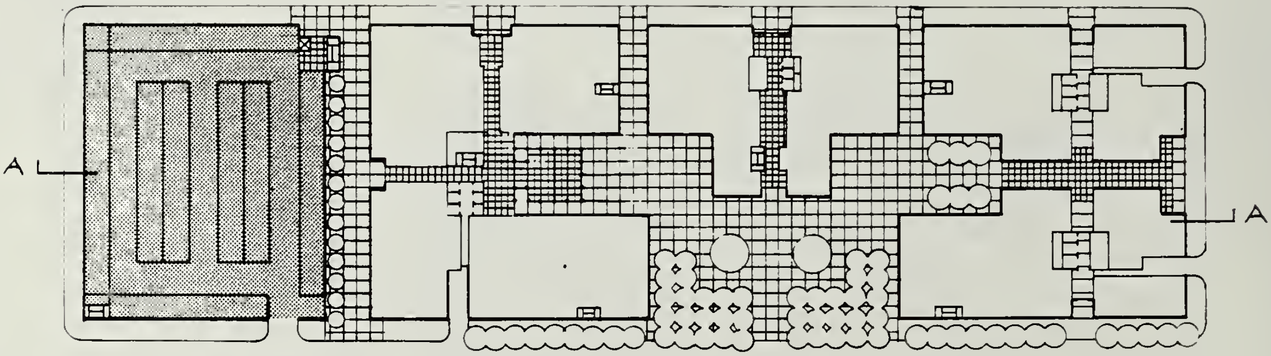
Prototype B



Axonometric View

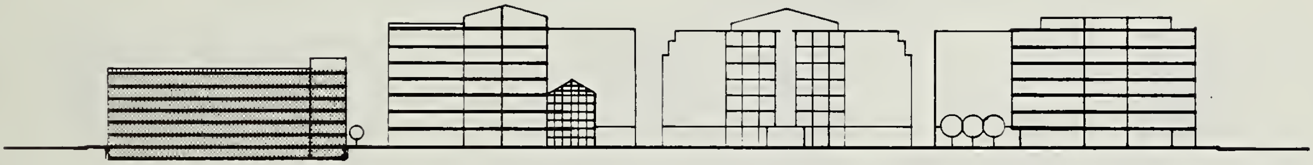
2.3 Prototypes

Prototype B



Ground Level Plan

Prototype B



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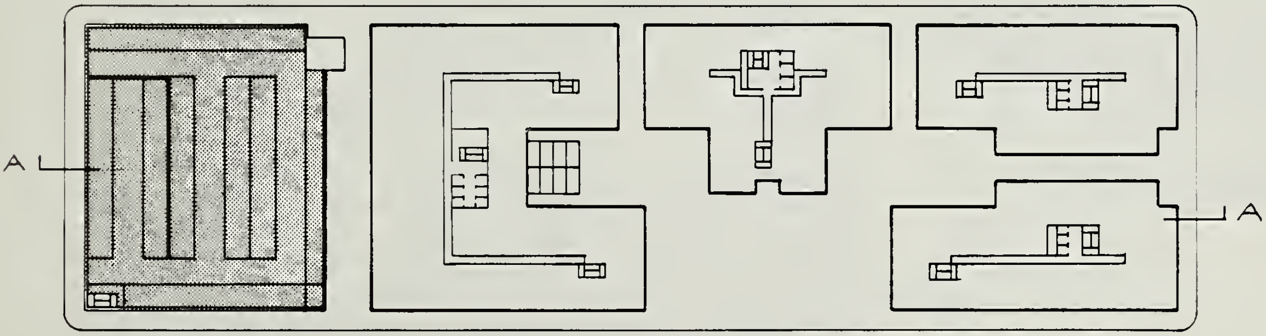
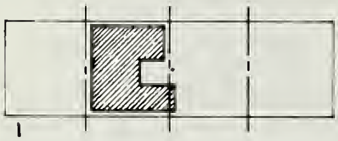
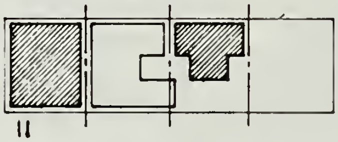


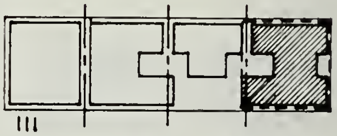
Ground Level Plan

Prototype BB

BLOCK SUBDIVISION:		Quarter blocks
LOT COVERAGE/OPEN SPACE:		75% / 25%
SITING:		Four buildings forming courtyards connected to a public plaza on the south. Parking structure on west end of block.
PHASING:	I.	285,000 sf office/surface parking.
	II.	138,000 sf office/separate parking structure - 984 spaces.
	III.	380,000 sf office/1/4 block parking-one level below grade.

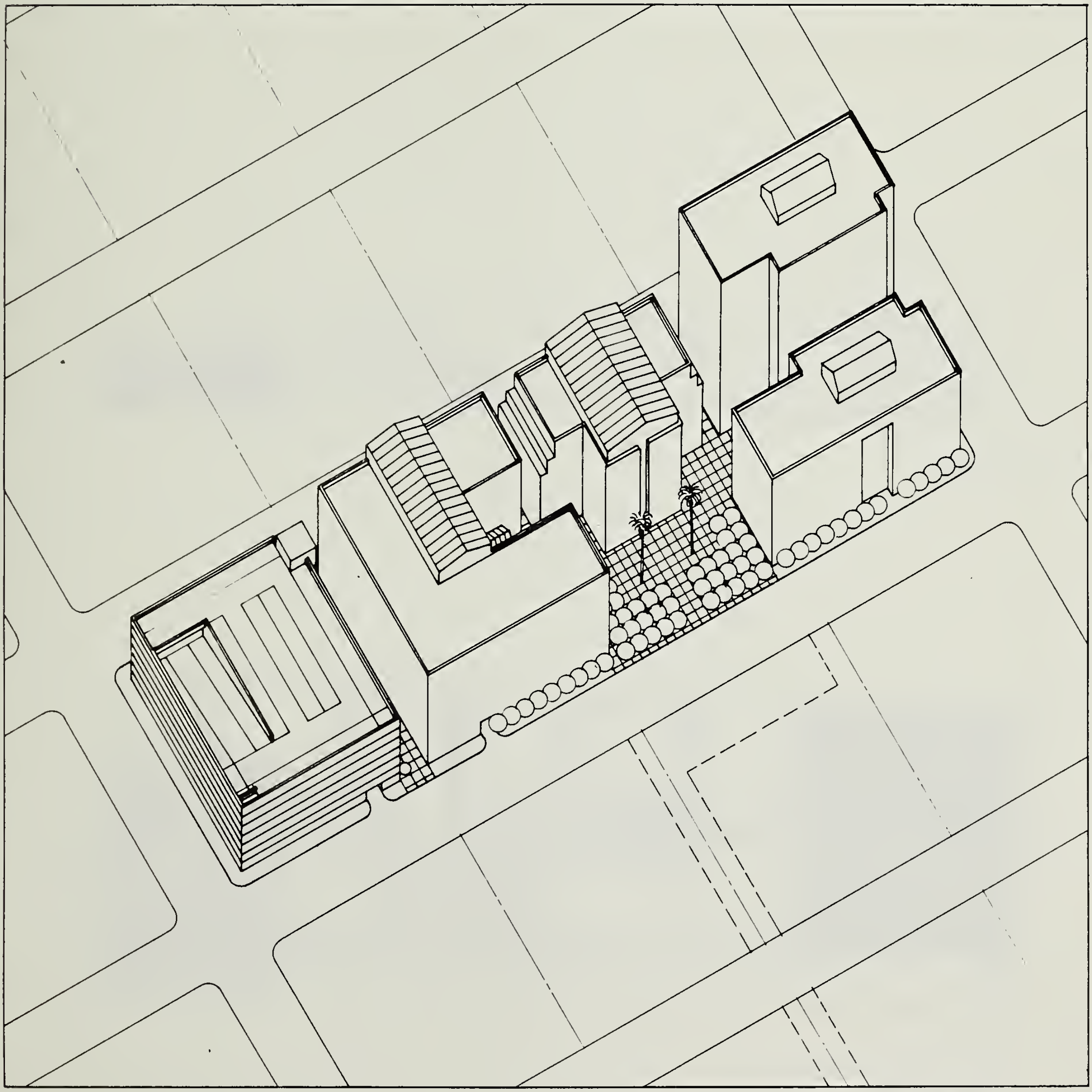






RELATIONSHIP TO GRADE:	Separate parking structure has 1/2 level below grade. There is one level of parking below grade on 1/4 of the block. All other buildings are on or above grade. Open space at grade.
PARKING CONFIGURATION:	Parking is in a separate structure of 8 levels, one partially below grade, 984 spaces @ 325 sf/space; and one below grade level on 1/4 of the site, 146 spaces @ 350 sf/space. Total = 1,130 spaces; 1.4 spaces per 1,000 sf office/retail.
TOTAL FLOOR AREA:	804,000 sf
TYPICAL FLOOR PLATE AREA:	19,000 sf; 19,700 sf; 40,700 sf
BUILDING HEIGHT/FLOOR-TO-FLOOR:	Office: 12'-6"; Parking: 9'-0".
LEASE DEPTHS:	37'-50'
SUMMARY COMMENTS:	Prototype BB is a revision of Prototype B. It adds a 12-story office tower on one corner supported by parking below grade. These structures could occur as a final phase of the development of the block allowing the decision about the feasibility of below-grade parking to be made late in the development process. Constructing parking below the office buildings at the east end of the site places a supply of parking near all four buildings. This scheme is, in all other respects, the same as Prototype B.

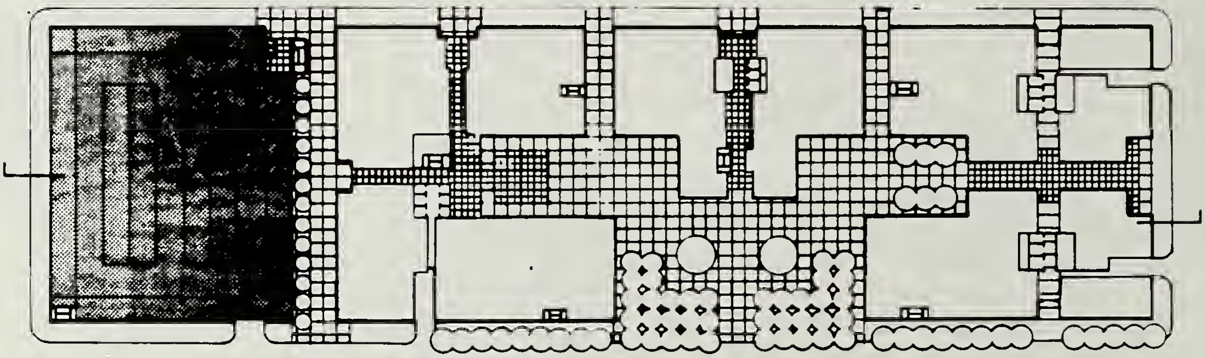
Prototype BB



Axonometric View

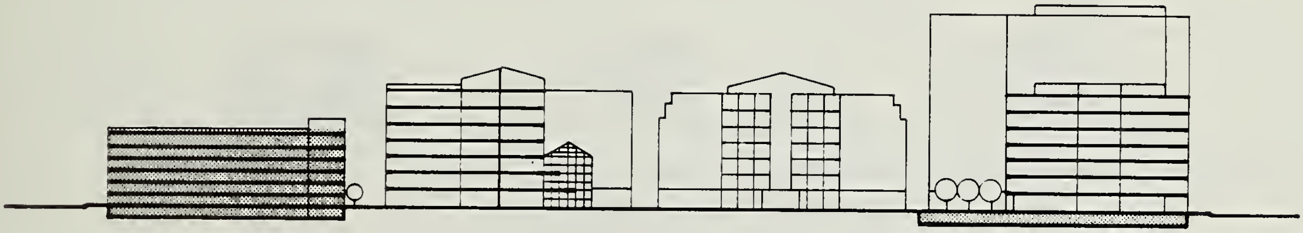
2.3 Prototypes

Prototype BB



Ground Level Plan

Prototype BB



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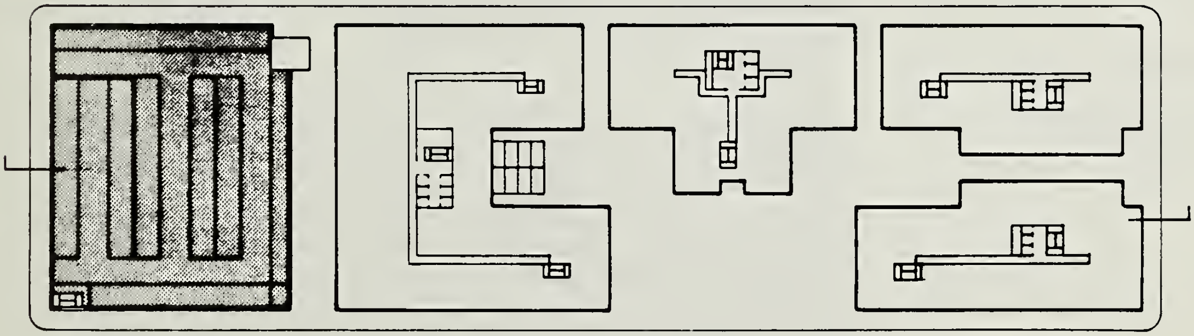
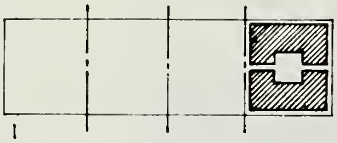


Typical Floor Plan

2.3 Prototypes

Prototype C

BLOCK SUBDIVISION:	Quarter blocks and half blocks
LOT COVERAGE/OPEN SPACE:	83% / 17%
SITING:	Three buildings at ends of the block with a parking structure at mid-block. Two through-block passages, one public courtyard.
PHASING: I.	201,000 sf office/surface parking.
II.	590,000 sf office/11,000 sf retail/836-space parking structure/325-space below grade parking level.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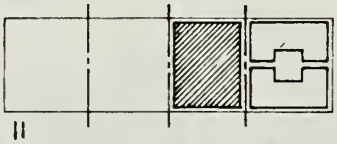
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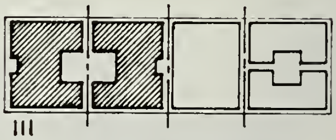
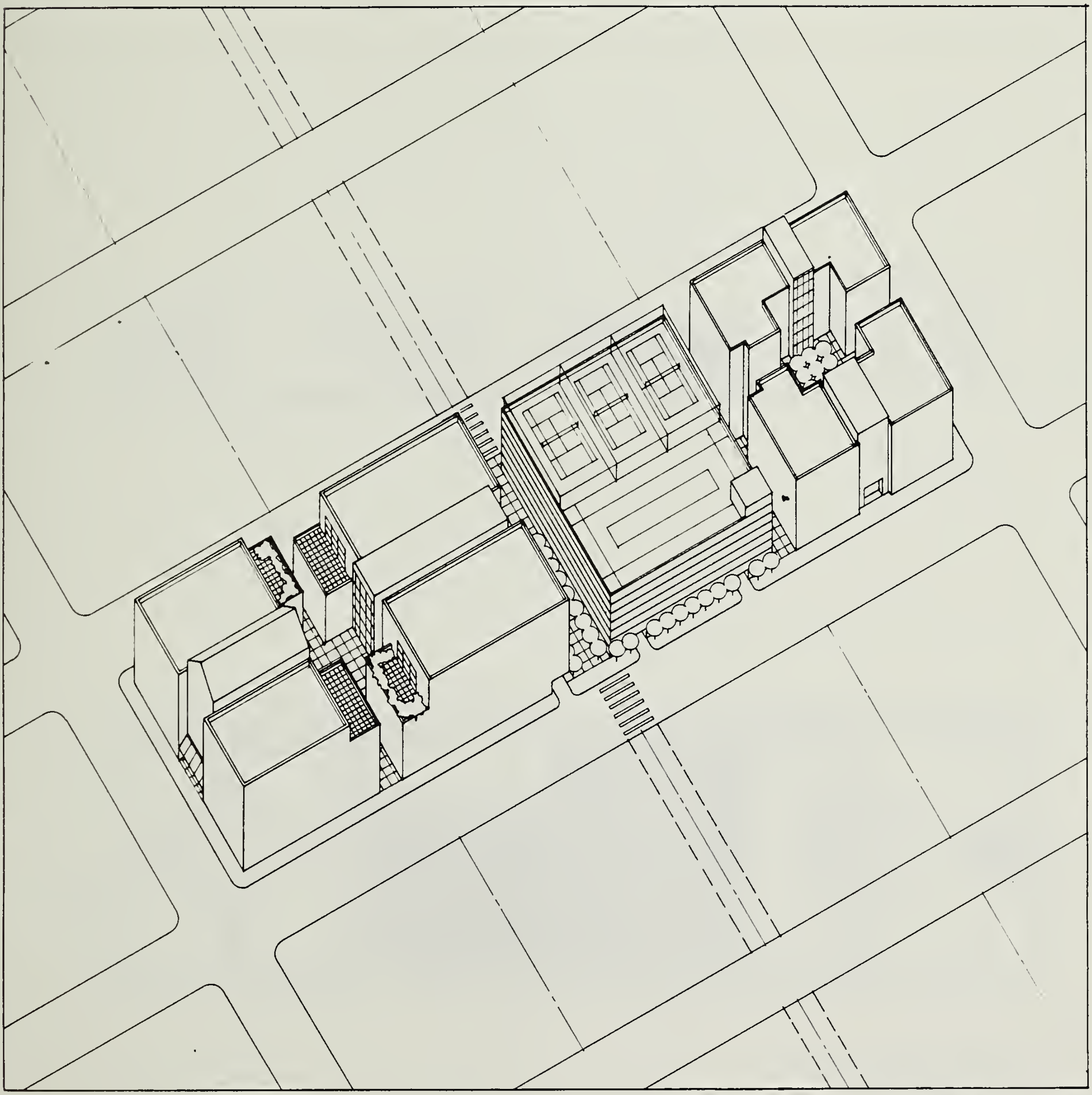

III

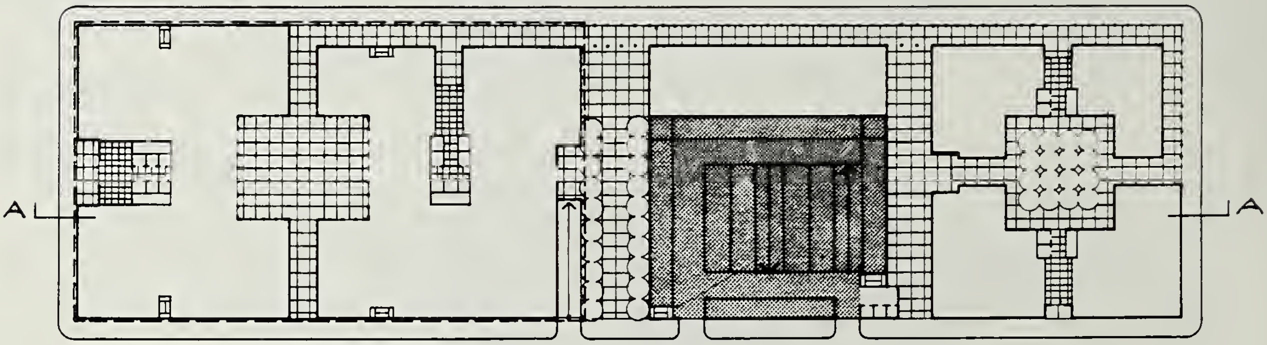
RELATIONSHIP TO GRADE:	One parking level below grade on 1/2 of the block; one level of above-grade parking structure at -3'. All other buildings on and above grade. Open space at grade.
PARKING CONFIGURATION:	Seven level parking structure with 836 spaces @ 325 sf/space. One below-grade parking level with 287 spaces @ 325 sf/space; 1.4 spaces per 1,000 sf office/retail.
TOTAL FLOOR AREA:	800,000 sf
TYPICAL FLOOR PLATE AREA:	15,000 sf; 42,000 sf
BUILDING HEIGHT/FLOOR-TO-FLOOR:	Building 1: 12'-0" over 15'-0" ground floor; Building 2: 12'-6"; parking: 9'-0" adjacent to and over 15'-0" retail space.
LEASE DEPTHS:	30'-70'
SUMMARY COMMENTS:	Prototype C breaks the block down into three through-block parcels. One of the mid-block parcels contains a seven-level parking structure with retail along the major street frontage and recreational uses on the roof. The parking is very convenient to the office buildings. This scheme achieves approximately 800,000 sf leasable space by limiting open space to 17% and placing one level of below grade parking on one-half the block. The open space is allocated to a street-level pedestrian retail arcade, two generous pedestrian passages and a courtyard accessible by the public.

Prototype C



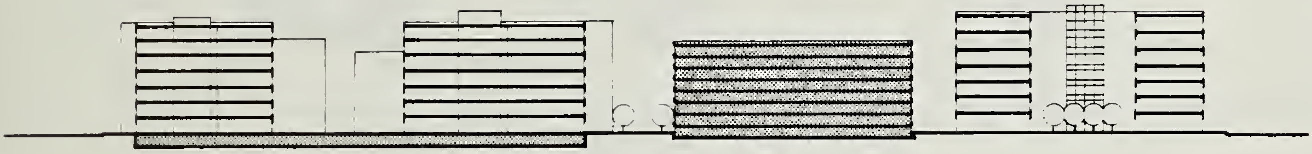
Axonometric View

Prototype C

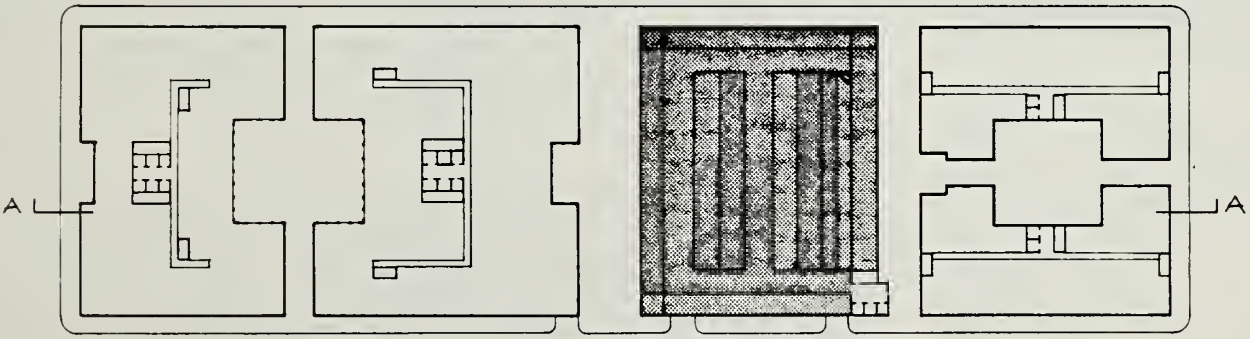


Ground Level Plan

Prototype C



Section A-A

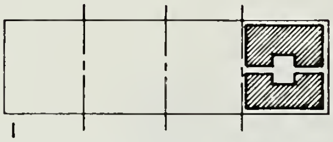


Typical Floor Plan

2.3 Prototypes

Prototype I

BLOCK SUBDIVISION:		Quarter blocks and half block
LOT COVERAGE/OPEN SPACE:		83% / 17%
SITING:		Three office buildings at ends of the block with a parking structure at mid-block. Two through-block passages, one public courtyard.
PHASING:	I.	201,000 sf office/surface parking.
	II.	688,000 sf office/11,000 sf retail/836-space parking structure/287-space below-grade parking level/137-space parking podium.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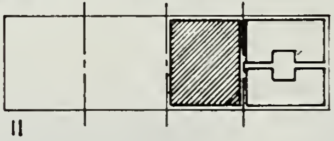
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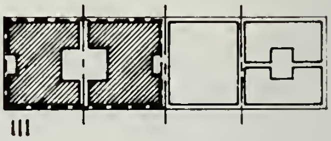
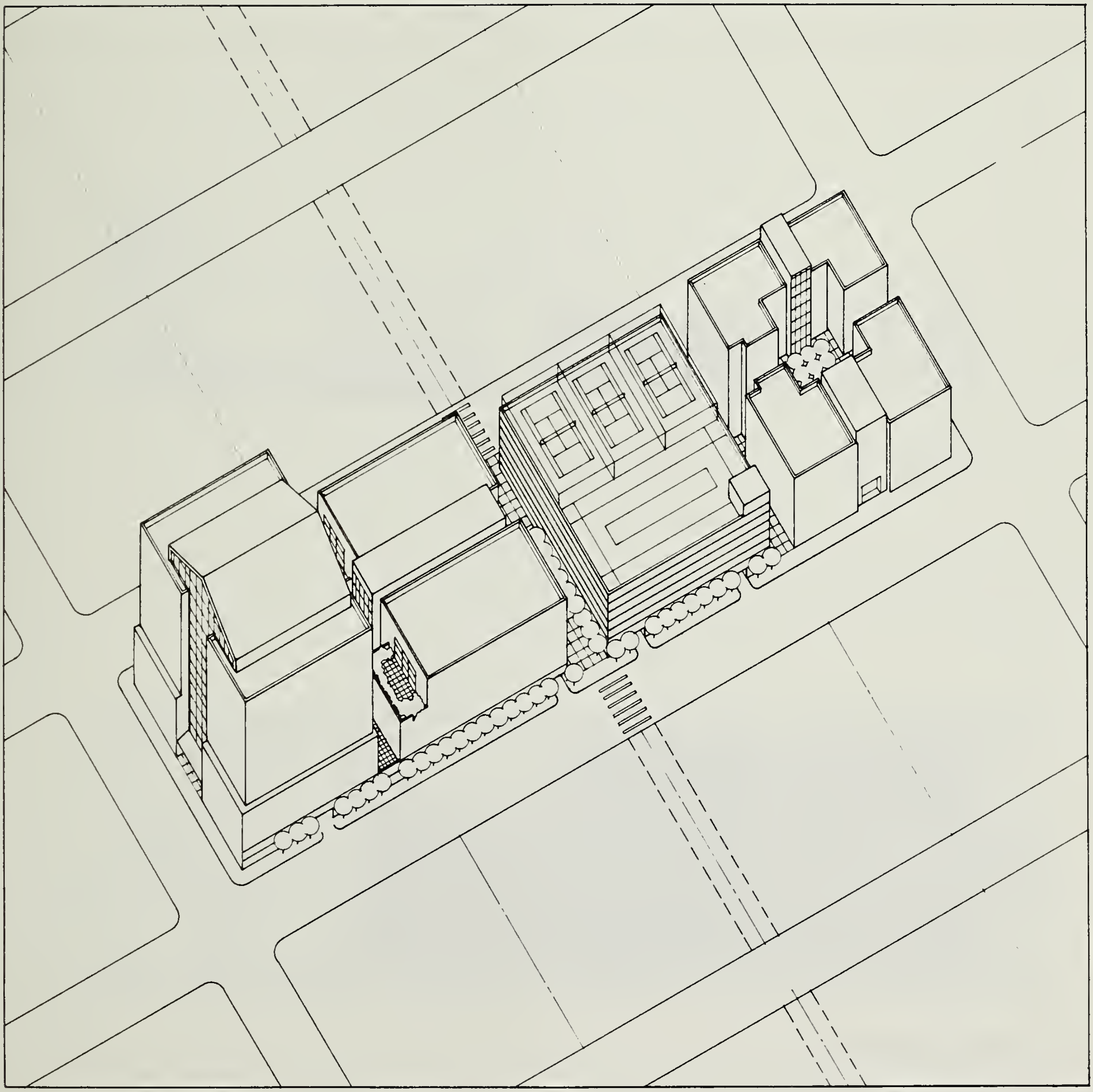

III

RELATIONSHIP TO GRADE:	One parking level below grade on 1/2 of the site; one level of above-grade parking structure at -3'. All other buildings on and above grade. Pedestrian passages on grade, public courtyard on parking podium, 18' above grade.
PARKING CONFIGURATION:	Seven-level parking structure with 836 spaces @ 325 sf/space. One below-grade level with 287 spaces @ 350 sf/space. Two levels in podium with 137 spaces @ 350 sf/space; 1.4 spaces per 1,000 sf office/retail.
TOTAL FLOOR AREA:	900,000 sf
TYPICAL FLOOR PLATE AREA:	15,000 sf; 42,000 sf; 35,000 sf
BUILDING HEIGHT/FLOOR-TO-FLOOR:	Building 1: 12'-0" over 15'-0" ground floor; Building 2: 12'-6"; parking: 9'-0" adjacent to and over 15'-0" retail space.
LEASE DEPTHS:	30'-70'
SUMMARY COMMENTS:	In Prototype CC, Scheme C is modified by adding a parking podium and a 13-story tower to Building 3. This approach produces approximately 900,000 sf leasable space while maintaining quarter-block divisions. In all other respects the prototype is the same as Scheme C.

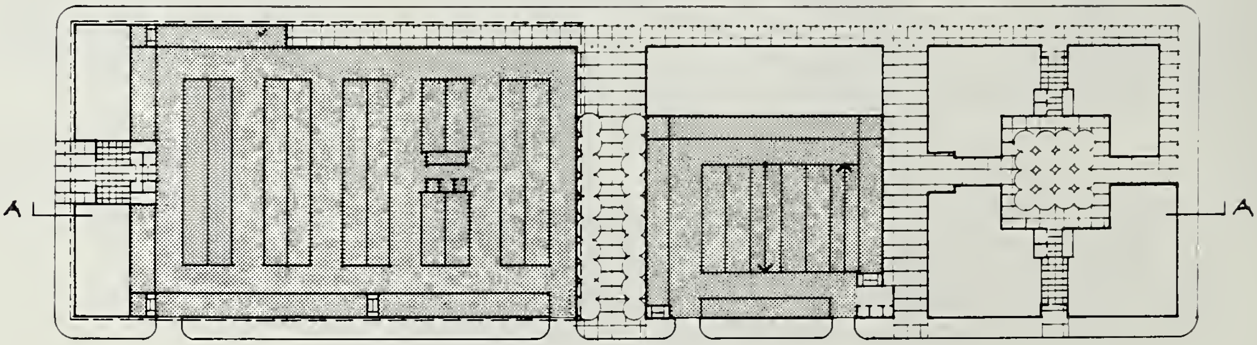
Prototype CC



Axonometric View

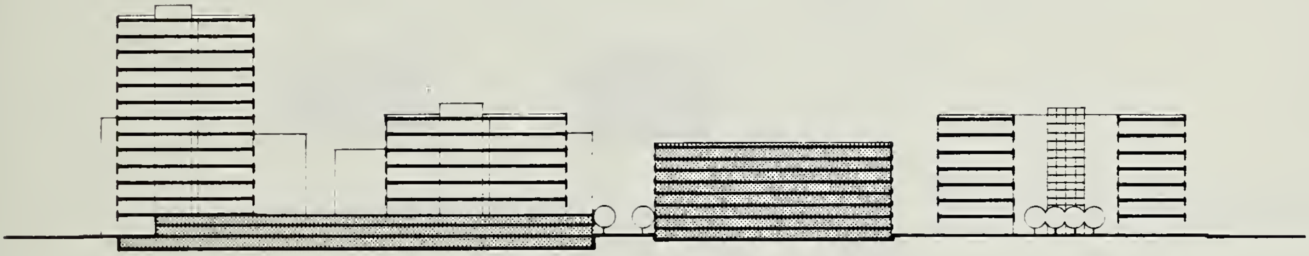
2.3 Prototypes

Prototype CC



Ground Level Plan

Prototype CC



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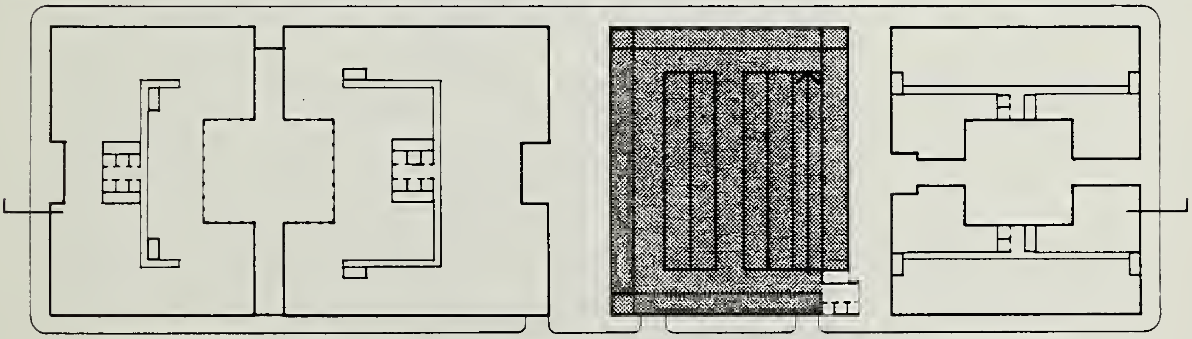
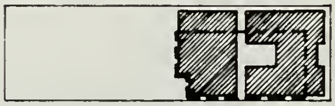


Typical Floor Plan

2.3 Prototypes

Prototype D

BLOCK SUBDIVISION:		Half blocks
LOT COVERAGE/OPEN SPACE:		85% / 15%
SITING:		Five buildings over parking podiums, street- level and podium-level public passages and courtyards.
PHASING:	I.	380,000 sf office/retail; 560-space parking podium.
	II.	420,000 sf office/retail; 560-space parking podium.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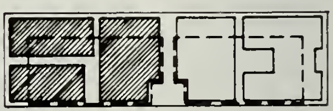
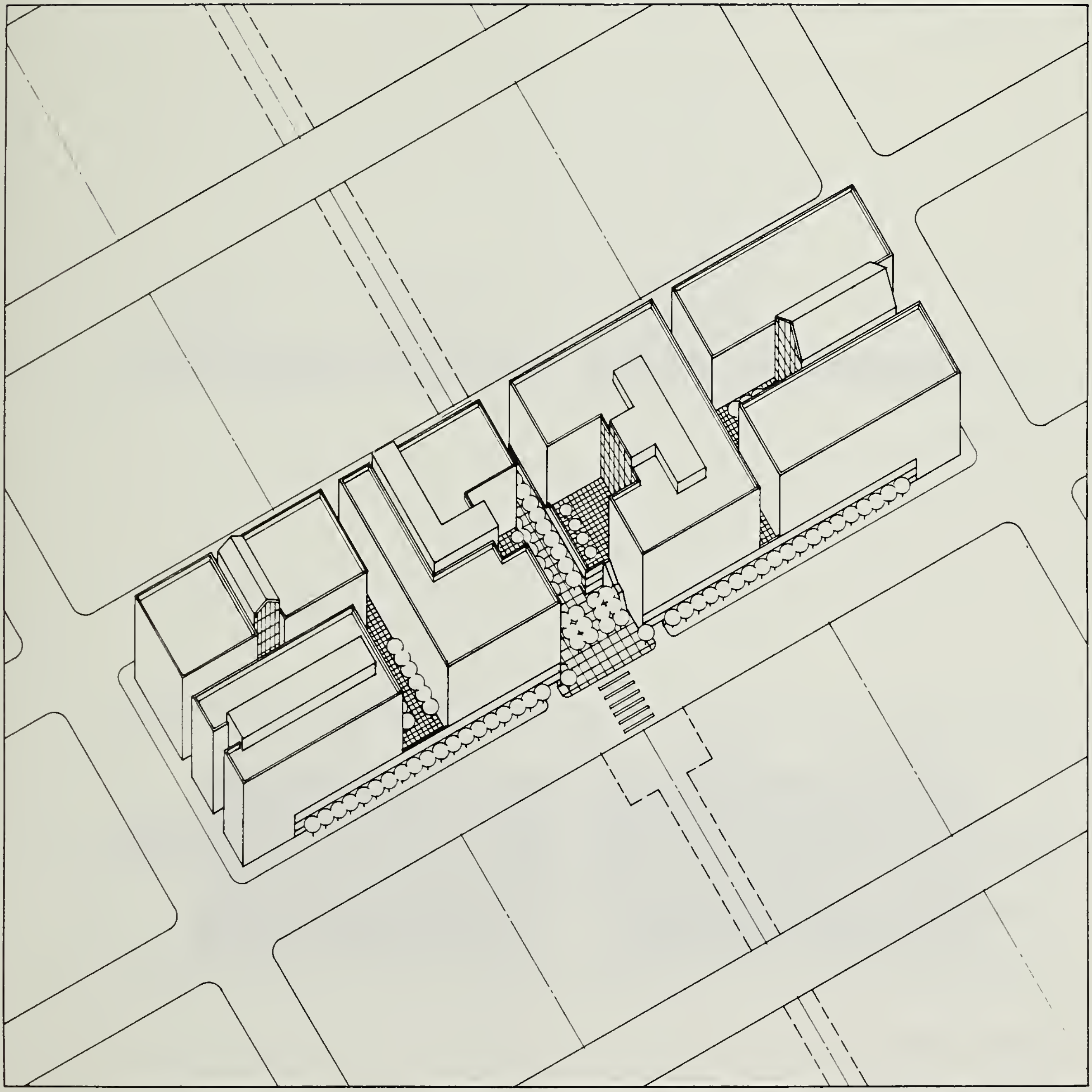

II

RELATIONSHIP TO GRADE:	One parking level @ -2', all other buildings above grade. Open space at grade and on 25' high parking podiums.
PARKING CONFIGURATION:	Two 3-level parking podiums, 1,120 spaces @ 350 sf/space; 1.4 spaces per 1,000 sf office/ retail.
TOTAL FLOOR AREA:	800,000 sf
TYPICAL FLOOR PLATE AREA:	20,000 sf; 21,500 sf; 30,000 sf; 40,000 sf
BUILDING HEIGHT/FLOOR-TO-FLOOR:	12'-6"
LEASE DEPTHS:	35'-50'
SUMMARY COMMENTS:	Two half-block developments under the life safety limit, built over three-level parking podiums, can achieve 800,000 sf leasable area with 15% open space. The open space is allocated to podium level courtyards and passages and one generous mid-block, on-grade passage and south-facing plaza. This arrangement partially buries the parking within the block; the parking structure, however, fronts along a considerable length of the street to the south of the development. Careful landscaping treatment will be needed to screen such a structure from pedestrian view.

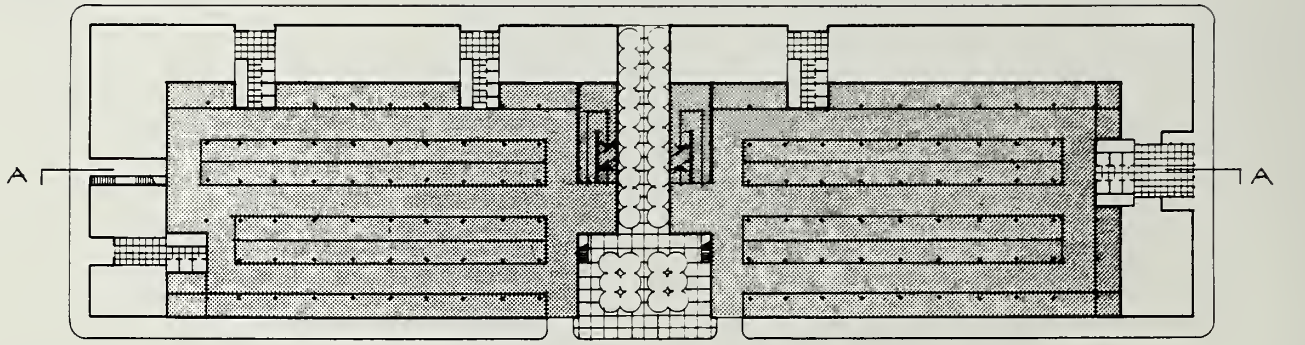
Prototype D



Axonometric View

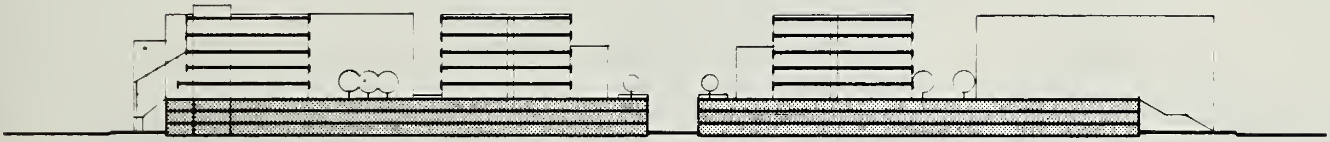
2.3 Prototypes

Prototype D

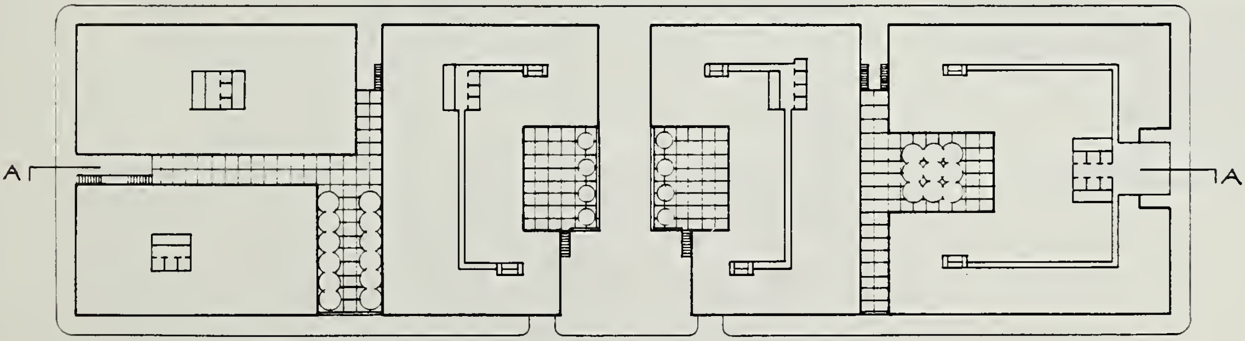


Ground Level Plan

Prototype D



Section A-A

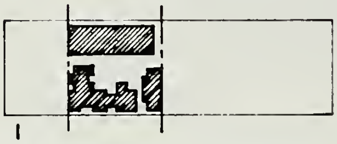


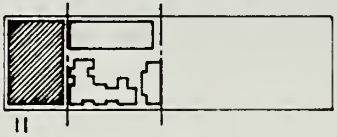
Typical Floor Plan

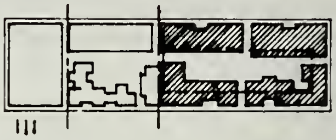
2.3 Prototypes

Prototype E

BLOCK SUBDIVISION:	Half blocks
LOT COVERAGE/OPEN SPACE:	75% / 25%
SITING:	Three office buildings, two low rise and one tower, along the north edge of the block. One housing tower and two clusters of low rise housing along the south side. Separate parking structure on the east end of the block. An on-grade garden and a podium-level linear courtyard separate the office and housing uses.
PHASING: I.	134,000 sf office space and 38 dwelling units; surface parking.
II.	492 parking spaces (surplus).
III.	272 parking spaces; 241,000 sf office space and 200 dwelling units.

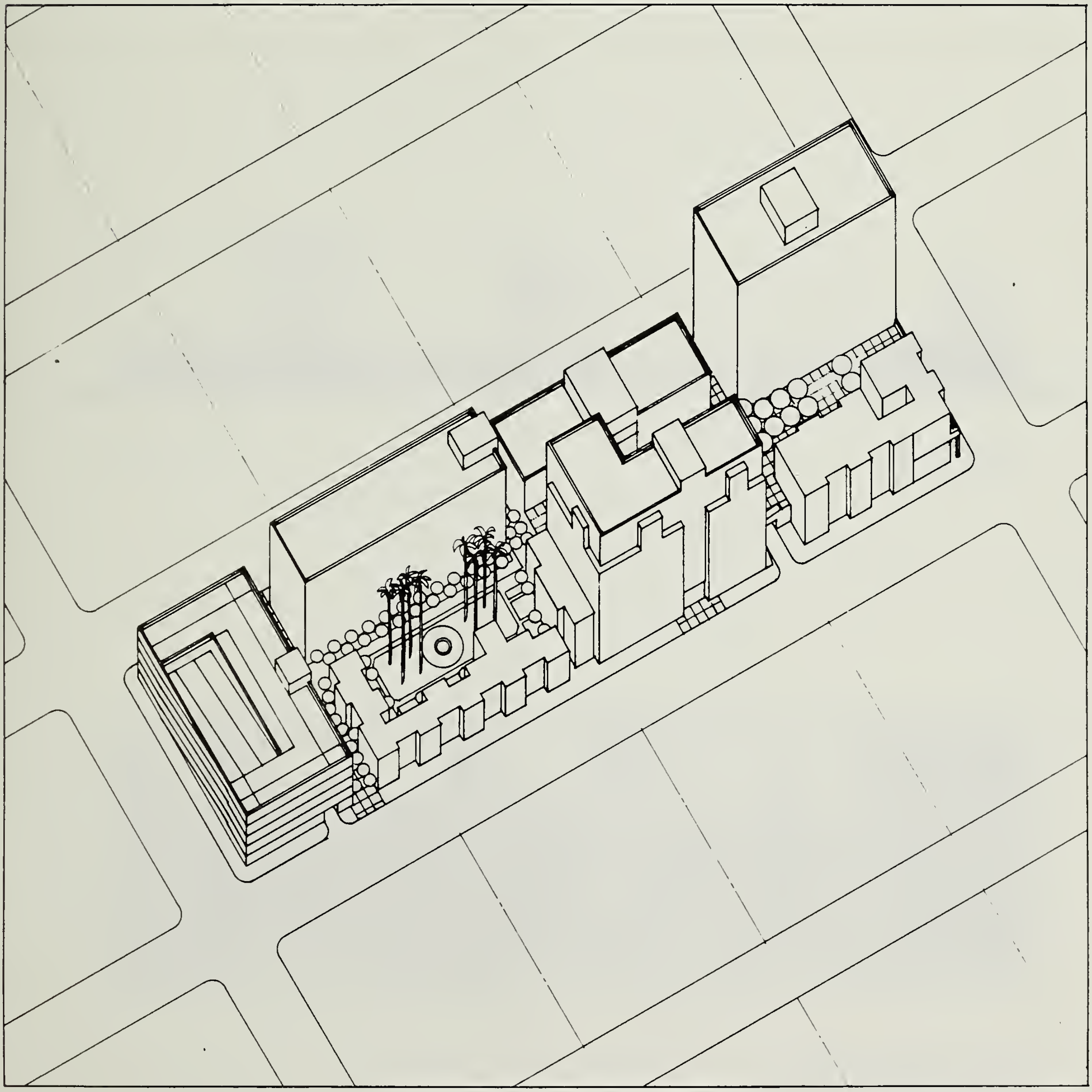

I


II


III

RELATIONSHIP TO GRADE:	All structures on or above grade; public open space on grade, private open space on parking podium.
PARKING CONFIGURATION:	One separate 6-level structure; 2-level podium @ 325 sf/space, 1.4 spaces per 1,000 sf office, 1 space per dwelling unit. 764 spaces.
TOTAL FLOOR AREA:	375,000 sf office and 238 dwelling units.
TYPICAL FLOOR PLATE AREA:	19,200 sf; 15,750 sf; 17,000 sf
BUILDING HEIGHT/FLOOR-TO-FLOOR:	Office: 12'-6"; housing & parking: 9'-0".
LEASE DEPTHS:	30'-40'
SUMMARY COMMENTS:	The horizontal separation of office from housing uses in this prototype may be a useful direction for development of high density blocks which have a busy, noisy street frontage along one side. One of the difficulties in this arrangement of uses is in screening housing private outdoor space from office windows. The separation of uses along the long axis of the Mission Bay block tends to produce more office and less housing space than in the vertically layered mixed use in Prototype F.

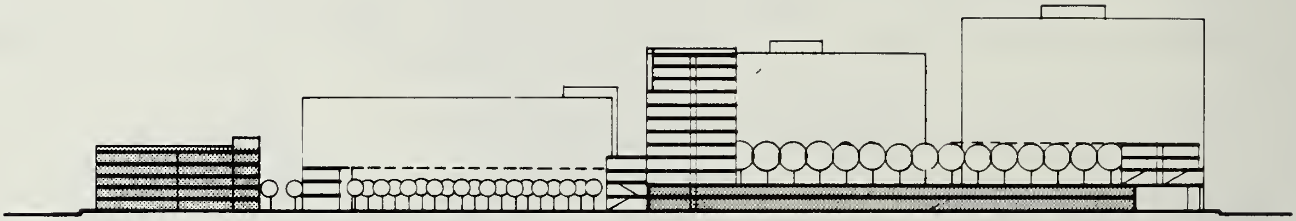
Prototype E



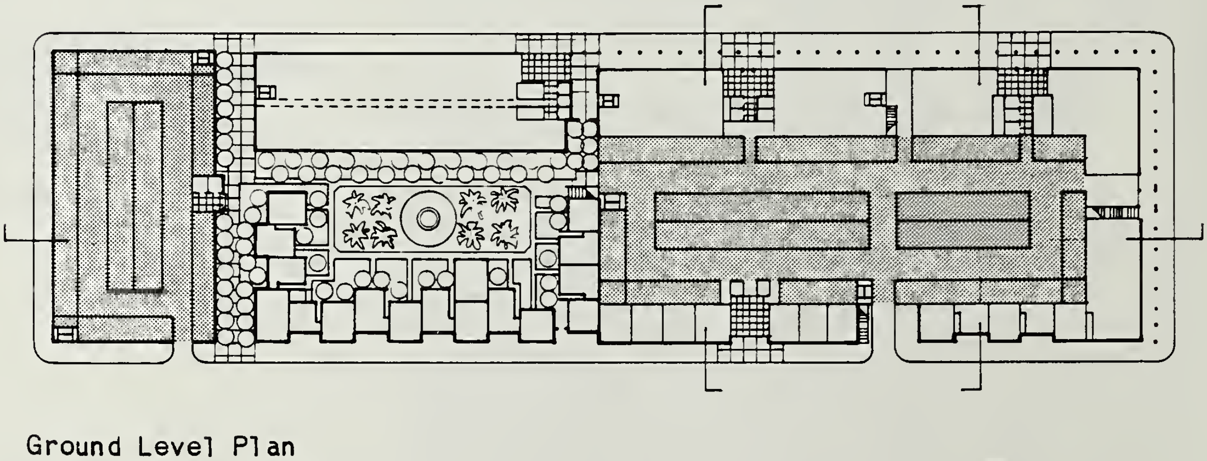
Axonometric View

2.3 Prototypes

Prototype E

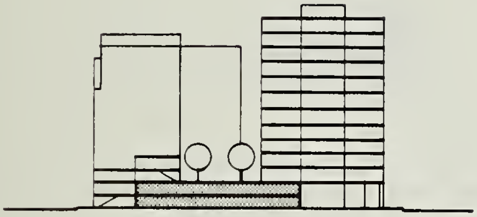


Section A-A



Ground Level Plan

Prototype E



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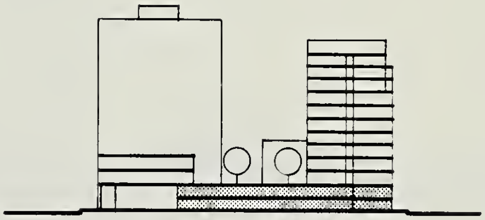

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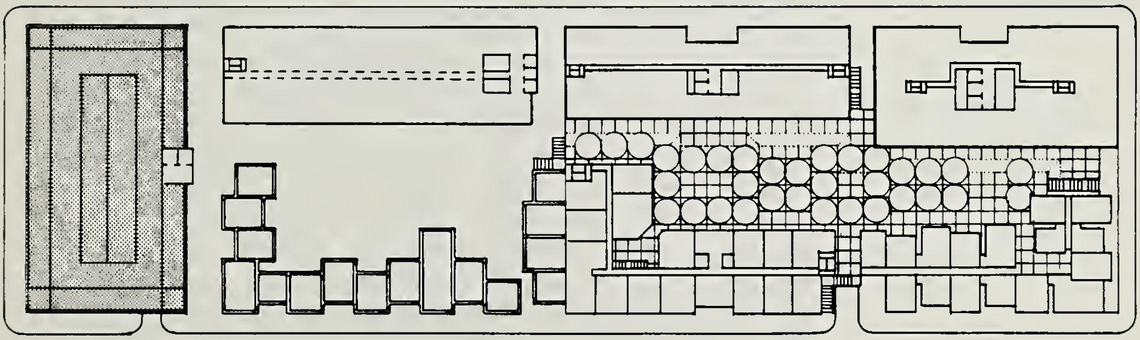
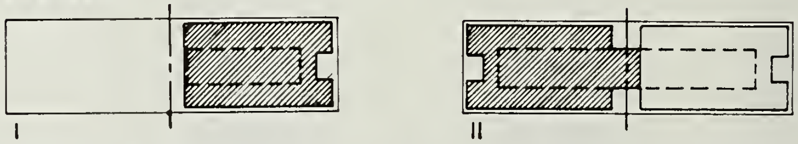


Typical Floor Plan

2.3 Prototypes

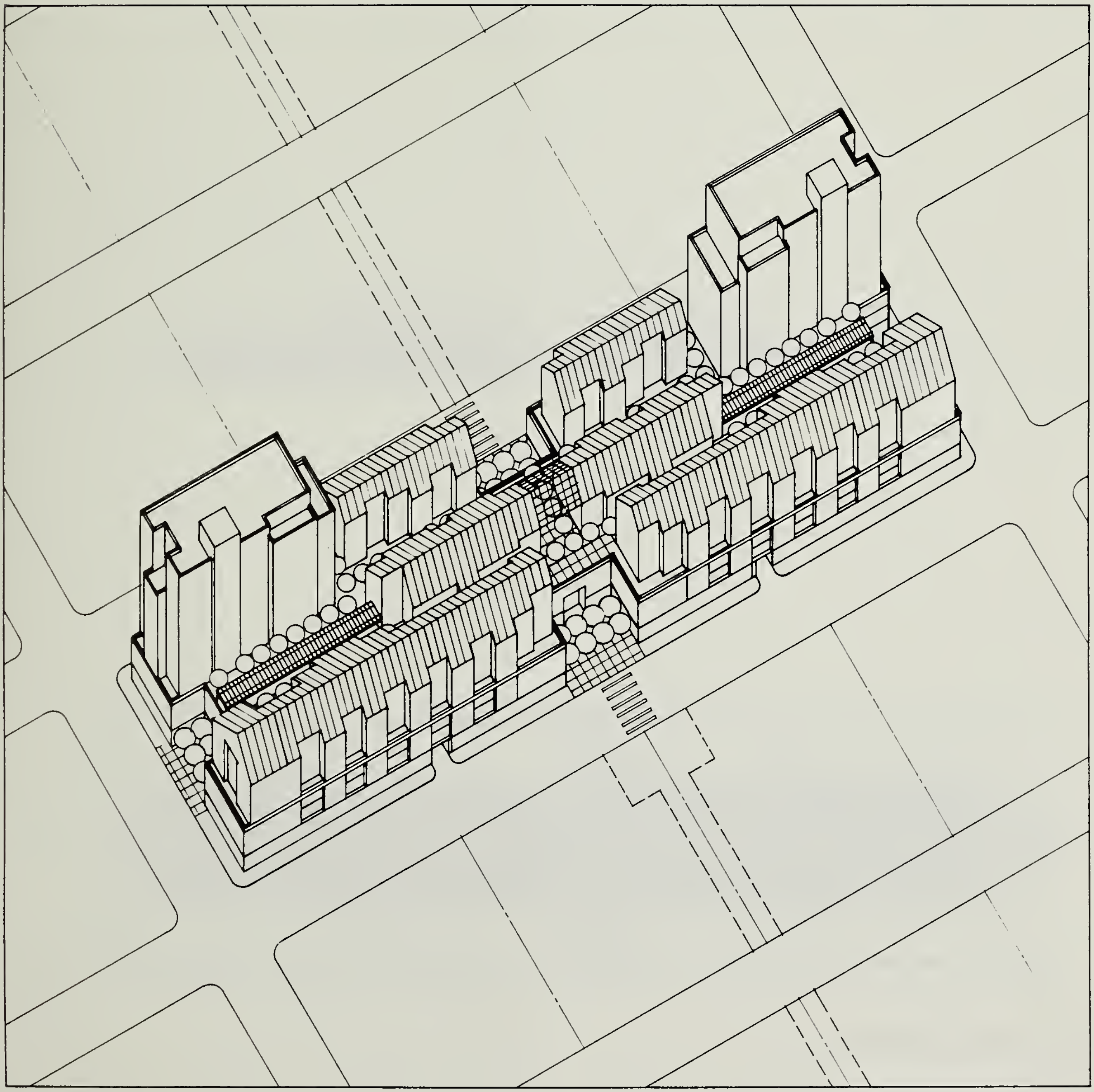
Prototype F

BLOCK SUBDIVISION:	Half blocks
LOT COVERAGE/OPEN SPACE:	90% / 10%
SITING:	Vertically divided mixed uses: housing over office and parking. Podium-level mews.
PHASING: I.	130,000 sf office; 267 dwelling units; 450 parking spaces.
II.	130,000 sf office: 267 dwelling units; 450 parking spaces.



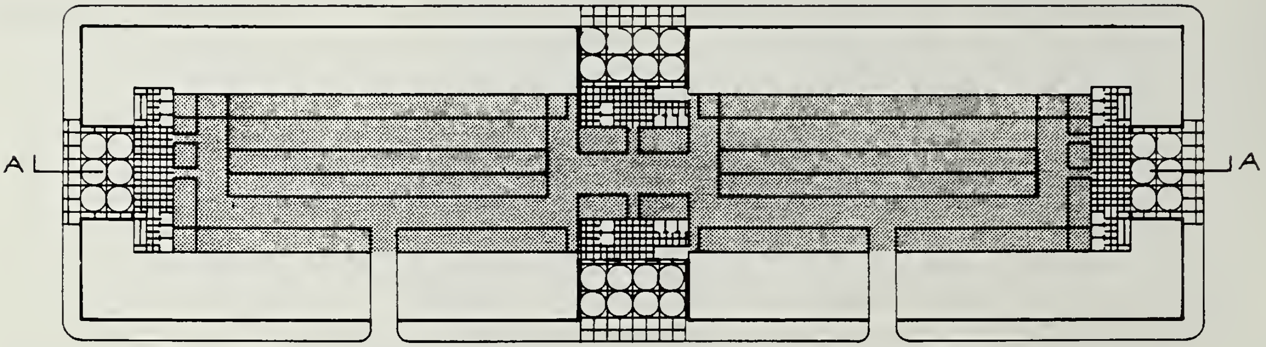
RELATIONSHIP TO GRADE:	All above grade.
PARKING CONFIGURATION:	4-level podium in middle of block. 900 spaces @ 350 sf/space; 1.4 spaces per 1,000 sf office, 1 space per dwelling unit.
TOTAL FLOOR AREA:	260,000 sf office and retail; 534 dwelling units.
TYPICAL FLOOR PLATE AREA:	10,000 to 35,000 sf; 525 to 1,500 sf per dwelling unit.
BUILDING HEIGHT/FLOOR-TO-FLOOR:	Office: 12'-6" over 18'-0" at grade; parking and housing: 9'-0".
LEASE DEPTHS:	52'
SUMMARY COMMENTS:	Prototype F deals with vertical layering of uses. At grade and up to 40' in height are parking, retail and office uses. On the podium thus created sit four stories of walk-up flats and townhouses. In addition there are two 12- story housing towers punctuating the ends of the block. Street-level plazas lead to housing and office lobbies and the the internal parking. This vertical layering of housing units over parking and office space allows easier separation of outdoor areas belonging to the housing from those used by office occupants and the public. It also allows for complete separation of office views from housing outdoor areas. Parking is at its most convenient for all users.

Prototype F



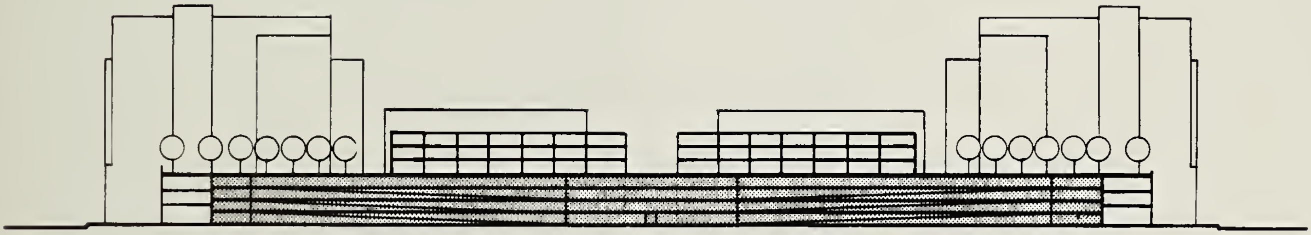
Axonometric View

Prototype F

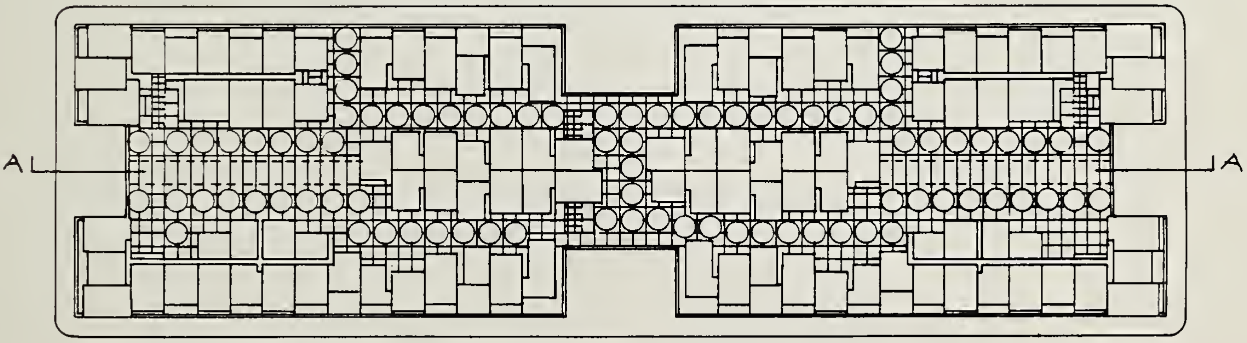


Ground Level Plan

Prototype F



Section A-A



Typical Floor Plan

3.0 Research & Development and Light Industrial Uses

3.0 RESEARCH & DEVELOPMENT AND LIGHT INDUSTRIAL USES

There is considerable interest in the potential for developing space for R & D businesses in the Mission Bay area because that enterprise is expected be the Bay Area's major growth industry through the year 2000. The City and the developer, therefore, would like to make every effort to explore securing a sector of the new business. These types of businesses include not only pure research and development space, but other light industrial uses such as light manufacturing, warehousing and distribution functions. It may also include "bio-tech", bio-medical, electronic, and computer software development. The current plan determinants (see Choices for Mission Bay report, June 11, 1986) for the Mission Bay site call for 13-38 acres with a total development in the range of 1.0 - 3.0 million square feet.

In seeking information on existing examples of R & D and light industrial uses, on-site field research was used whenever practicable. Examples of buildings which hold promise of development were identified and data obtained by the use of survey forms (see sample survey form which appears at the end of this section). The forms were organized by building type, i.e., R & D or LIGHT INDUSTRIAL, etc. The research to be gathered was grouped into the following broad categories and information was sought in the related sub-categories.

BASIC INFORMATION

* specific use
* location
* whether the building was occupied
* number of tenants

3.0 RESEARCH & DEVELOPMENT AND LIGHT INDUSTRIAL USES

SITE INFORMATION

* width of front, rear, and side setbacks
* occurrence of a courtyard/atrium
* occurrence of public or private landscaping
* availability of street parking
* size of public or private parking lots and whether a fee was required
* occurrence of a public loading zone
* occurrence and number of truck loading facilities

ACCESSIBILITY

* street type
* utilization by pedestrians
* number of public transportation routes within a two block radius
* freeway access within one half (0.5) mile
* distance to the financial center (if located within an urban area)

ARCHITECTURAL FORM

* building height
* number of stories
* gross square feet of building
* roof type
* general massing
* type of construction
* roof material
* predominate building material
* the style and general comments about the aestethic success

PHOTOGRAPHIC RECORD

* Photographs were taken at the sites studied as a record, and are appended to this report.

The research was then transcribed into a graphic format to aid in the discovery of consistent characteristics. Special note was also taken of those characteristics which do not affect development. The analysis of numeric information (setbacks, parking, building story height, etc.) was done by averaging. Prototypes were then developed from the analyzed material. Floorplate sizes, story heights, truck loading facilities, were derived from quantitative data. Setbacks, and parking ratios are a product of zoning and intensity of use and are projected to insure the continuity of the urban environment. Finally, suggestions of materials have been based on economic determinants and precedence of their use on similar buildings.

RESEARCH & DEVELOPMENT AND LIGHT INDUSTRIAL USES

3.1 Research & Development Uses

3.1 R & D USES:

3.1.1 R & D/DOCUMENTATION OF EXISTING BUILDINGS

A total of thirty-four R & D businesses have been studied, nine of which are in San Francisco, two large "campus" type R & D parks which are in the San Jose area, five buildings which are in the Los Angeles area, and the balance of which are in the greater East Bay area.

R&D BIOLOGICAL, C

REFERENCE NUMBER	BASIC INFORMATIO SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	
1	VIDEO 630 THIRD ST. SAN FRANCISCO	■	3	RE RES OF	AWNINGS. DE.
2	CHEMICAL 1001 17th ST. SAN FRANCISCO	■	1	WH WHS WH	RELIEF
3	PAINT LABORATORY 998 16th ST. SAN FRANCISCO	■	1	LT LTI LT	D OUT ENT VISABLE
4	MED. LABORATORY McCANDLESS PK. MILPITAS	■		SR OFF SR	RN XTURE.
5	BIO./CHEMICAL HARBOR BAY PK. ALAMEDA	■	1	RE OFF RE	
6	BIO./MEDICAL HARBOR BAY PK. ALAMEDA	■	1	R OFF RE	RID OF DE PARKING GS.
7	ELECTRONICS 414 BRANNAN SAN FRANCISCO	■	1	RE OFF LT	AILING
8	COMPUTER 80 CAROLINA SAN FRANCISCO	■	1	SR RTL OF	RIAL MAT- AT SPLINE.
9	COMP. SOFTWARE HARBOR BAY PK. ALAMEDA	■	1	R OFF R	NO &
10	COMP. SOFTWARE HARBOR BAY PK. ALAMEDA	■	1	R OFF O	
11	COMP. SOFTWARE HARBOR BAY PK. ALAMEDA	■	2	R RES O	RNERS
12	COMP. SOFTWARE HARBOR BAY PK. ALAMEDA	■	1	R RES O	RNERS
13	COMP. DEVEL'T. HARBOR BAY PK. ALAMEDA	■	1	R RES O	RNERS
14	ELECTRONICS GREYLANDS PK. WEST SAN JOSE	■	VARIES	R RTL O	SHAKE .
15	ELECTRONICS GREYLANDS PK. WEST SAN JOSE	■	VARIES	R RTL O	SHAKE .
16	ELECTRONICS McCANDLESS PK. MILPITAS	■	1	S OFF S	RN XTURE.
17					
18					
19					
20					
21					
SUMMARY **R & D BIOLOGICAL CHEMICAL & ELECTRICAL USES**			1	R RTL 8	EO

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD

SITE INFORMATION SYMBOLS:

LANDSCAPING

NO LANDSCAPING

$ — FEE REQUIRED

■ — YES

□ — NO

STREET TYPE SYMBOLS:

↑ / ↑↑ — ONE-WAY SINGLE / MULTI-LANE

↓↑ / ↓↓↑↑ — TWO-WAY SINGLE / MULTI-LANE

BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

FLAT ROOF

PITCHED ROOF

DECORATIVE SHED

MASS SYMBOLS:

SIMPLE

COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

TILT-UP

FRAME

STEEL FRAME / PRE-ENGINEERED METAL BUILDING

CONCRETE: PRE-CAST / CAST-IN PLACE

UNIT MASONRY

MATERIAL SYMBOLS:

WOOD

CONCRETE

MASONRY

METAL PANELS

STUCCO

R&D BIOLOGICAL, CHEMICAL & ELECTRICAL USES

	BASIC INFORMATION				SITE INFORMATION													ACCESSIBILITY						ARCHITECTURAL FORM								
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	FRONT SETBACK (FT.)	REAR SETBACK (FT.)	SIDE SETBACK (FT.)	SIDE SETBACK (FT.)	COURTYARD / ATRIUM	LANDSCAPE - PUBLIC	LANDSCAPE - PRIVATE	STREET PARKING	PUBLIC PARKING LOT FEE REQUIRED NUMBER OF SPACES	PRIVATE PARKING LOT FEE REQUIRED NUMBER OF SPACES	PUBLIC LOADING ZONE	TRUCK LOADING DOCK	NUMBER OF DOORS	STREET TYPE	PEDESTRIAN WALK-UP	PUBLIC TRANSPORTATION	NO. OF ROUTES W/IN 2 BLOCKS	FREEWAY ACCESS W/IN 1/2 MILE	DISTANCE TO FINANCIAL CENTER (MI.)	BUILDING HEIGHT (FT.)	NUMBER OF STORIES	GROSS SQ. FT. X 1000	ROOF TYPE	MASS	TYPE OF CONSTRUCTION	MATERIAL: ROOF	MATERIAL: BUILDING	STYLE & COMMENTS:
1	VIDEO 630 THIRD ST. SAN FRANCISCO	■	3	RES RES ☐ OFF OFF	0	0	0	20	☐	⊘	⊘	■	☐	☐ 8	■	■	3	↓↓↑↑	☐	■	4	■	.5	24	2	20	⊓	⧉	⊤	N.A.	⊤	INDUSTRIAL STYLE W/ CANVAS AWNINGS. MUCH GLAZING IN FRONT FACADE.
2	CHEMICAL 1001 17th ST. SAN FRANCISCO	■	1	WHS WHS ☐ WHS WHS	0	0	0	0	☐	⊘	⊘	■	☐	■ 8	■	■	6	↓↑	☐	■	3	■	1	22	2	22	⊓	▢	⊤	N.A.	⊤	INDUSTRIAL STYLE W/ FACADE RELIEF
3	PAINT LABORATORY 998 18th ST. SAN FRANCISCO	■	1	LTI LTI ☐ LTI LTI	0	75	0	0	☐	⊘	⊘	■	☐	■ 12	■	☐	1	↓↑	☐	■	3	■	1	14 30	1 2	5	⊓	▢	⌶	N.A.	▧	INDUSTRIAL STYLE W/ PAINTED OUT WINDOWS. MECHANICAL EQUIPMENT VISABLE ON LOWER LEVEL.
4	MED. LABORATORY McCANDLESS PK. MILPITAS	■		SRV OFF ☐ OFF SRV	40	10	10	10	■	⊘	🌳	☐	☐	■ 150	☐	■	2	↓↑	☐	☐		■	☐	10 24	1	33	⇔	⧉	⇗	▤	⊤	MODERN STYLE OFFICE & MODERN WAREHOUSE. NICE STYLE & TEXTURE.
5	BIO./CHEMICAL HARBOR BAY PK. ALAMEDA	■	1	RES OFF ☐ OFF RES	40	40	40	60	☐	🌳	🌳	■	☐	■ 95	☐	■	2	↓↑	☐	■	1	☐	2.5	36	2	40	⊓	▢	⇗	N.A.	⊤	INDUSTRIAL STYLE W/ GLASS & COLOR BANDS.
6	BIO./MEDICAL HARBOR BAY PK. ALAMEDA	■	1	RES OFF ☐ OFF RES	30	25	25	25	■	🌳	🌳	☐	☐	■ 160	☐	■	1	↓↑	☐	■	1	☐	2.5	26	2	40	⊓	▢	⇗	N.A.	⊤	MODERN STRUCTURE W/ TILE GRID OF DARK GLAZING. GENEROUS GRADE PARKING SHARED W/ ADJACENT BUILDINGS.
7	ELECTRONICS 414 BRANNAN SAN FRANCISCO	■	1	RES OFF ☐ RTL LTI	0	0	0	0	☐	🌳	⊘	■	☐	☐	■	■	3	↓↓↑↑	■	■	2	■	.5	32	2	6	⇔	▢	⊤	▤	▧	MODERN BLDG. W/ FRENCH DETAILING
8	COMPUTER 60 CAROLINA SAN FRANCISCO	■	1	SRV RTL ☐ LTI OFF	40	0	0	0	■	🌳	🌳	■	■ 22	☐	☐	☐		↓↑	■	■	2	☐	2	22	2	9	⊓	▢	⌶	N.A.	⌶	CONTEMPORARY USE OF INDUSTRIAL MATERIALS. GLASS BARREL VAULT AT SPLINE.
9	COMP. SOFTWARE HARBOR BAY PK. ALAMEDA	■	1	RES OFF ☐ OFF RES	10	65	60	60	☐	⊘	🌳	☐	☐	■ 330	☐	☐		↓↓↑↑	☐	■	1	☐	2.5	22	1	100	⊓	▢	⇗	N.A.	⊤	MODERN BLDG. W/ GLAZING BAND & CIRCULAR GLAZED TACK-ON
10	COMP. SOFTWARE HARBOR BAY PK. ALAMEDA	■	1	RES OFF ☐ OFF OFF	90	10	60	90	■	⊘	🌳	☐	☐	■	☐	■	1	↓↑	☐	■	1	☐	2.5	30	2	40	⊓	▢	⇗	N.A.	⊤	MODERN BLDG. W/ TILE GRID FACADE & SMOKED GLAZING.
11	COMP. SOFTWARE HARBOR BAY PK. ALAMEDA	■	2	RES RES ☐ OFF OFF	50	90	10	50	☐	⊘	🌳	☐	☐	■ 200	☐	■	1	↓↓↑↑	☐	■	1	☐	2.5	30	2	120	⊓	▢	⇗	N.A.	⊤	MODERN BLDG. W/ ROUNDED CORNERS & SPANDREL GLASS
12	COMP. SOFTWARE HARBOR BAY PK. ALAMEDA	■	1	RES RES ☐ OFF OFF	60	10	10	60	■	🌳	🌳	☐	☐	■ 130	☐	☐		↓↑	☐	■	1	☐	2.5	28	2	80	⊓	▢	⇗	N.A.	⊤	MODERN BLDG. W/ ROUNDED CORNERS & SPANDREL GLASS
13	COMP. DEVEL'T. HARBOR BAY PK. ALAMEDA	■	1	RES RES ☐ OFF OFF	50	50	50	60	■	🌳	🌳	☐	☐	■ 200	☐	■	1	↓↓↑↑	☐	■	1	☐	2.5	28	2	80	⊓	▢	⇗	N.A.	⊤	MODERN BLDG. W/ ROUNDED CORNERS & SPANDREL GLASS
14	ELECTRONICS GREYLANDS PK. WEST SAN JOSE	■	VARIES	RES RTL ☐ OFF OFF	120	60	60	60	☐	🌳	🌳	☐	☐	■ 195	☐	■	1	↓↓↑↑	☐	☐		■	2	22	2	51	⊓	▢	⌶	▭	▤	MODERN BRICK BLDG. W/ HIP SHAKE ROOF. FACADE COLUMN RYTHMN.
15	ELECTRONICS GREYLANDS PK. WEST SAN JOSE	■	VARIES	RES RTL ☐ OFF OFF	90	60	240	60	■	🌳	🌳	☐	☐	■ 195	☐	■	1	↓↓↑↑	☐	☐		■	2	22	2	51	⊓	▢	⌶	▭	▤	MODERN BRICK BLDG. W/ HIP SHAKE ROOF. FACADE COLUMN RYTHMN.
16	ELECTRONICS McCANDLESS PK. MILPITAS	■	1	SRV OFF ☐ OFF SRV	70	70	70	20	☐	🌳	🌳	☐	☐	■ 165	☐	■	2	↓↑	☐	☐		■	☐	10 24	1	42	⇔	⧉	⇗	▤	⊤	MODERN STYLE OFFICE & MODERN WAREHOUSE. NICE SCALE & TEXTURE.
17				☐																												
18				☐																												
19				☐																												
20				☐																												
21				☐																												
SUMMARY **R & D BIOLOGICAL CHEMICAL & ELECTRICAL USES**			1	RES RTL ☐ OFF SRV	45	35	40	35	☐	🌳	🌳	☐	☐	■ 115	☐	■	2	↓↓↑↑	☐	■	1	■	1.5	27	2	46	⊓	▢	⇗	N.A.	⊤	MODERN BUILDING OFTEN WITH APPENDAGED OFFICES. LOCATED IN "CAMPUS" DEVELOPMENT.

LEGEND:

ADJACENT USES:

WHS — WAREHOUSE / STORAGE
RTL — RETAIL
RES — RESIDENTIAL
OFF — OFFICE / COMMERCIAL
INS — INSTITUTIONAL
LTI — LIGHT INDUSTRIAL
SHR — SHOWROOM / RETAIL WHOLESALE
SRV — SERVICE
RRO — RAILROAD

SITE INFORMATION SYMBOLS:

🌳 — LANDSCAPING
⊘ — NO LANDSCAPING
$ — FEE REQUIRED
■ — YES
☐ — NO

STREET TYPE SYMBOLS:

↑ / ↑↑ — ONE-WAY SINGLE / MULTI-LANE
↓↑ / ↓↓↑↑ — TWO-WAY SINGLE / MULTI-LANE
↓ ⁞ ↑ / ↓↓ ⁞ ↑↑ — BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

⊓ — FLAT ROOF
⌂ — PITCHED ROOF
⇔ — DECORATIVE SHED

MASS SYMBOLS:

▢ — SIMPLE
⧉ — COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

⇗ — TILT-UP
▭ — FRAME
⌶ — STEEL FRAME / PRE-ENGINEERED METAL BUILDING
⊤ — CONCRETE: PRE-CAST / CAST-IN PLACE
▤ — UNIT MASONRY

MATERIAL SYMBOLS:

▭ — WOOD
⊤ — CONCRETE
▤ — MASONRY
⌶ — METAL PANELS
▧ — STUCCO

R&D MIXED USES

REFERENCE NUMBER	BASIC INFORMATION SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	
1	NEW BLDG. 3800 3RD ST. SAN FRANCISCO	☐	8	LTI OFF ☐ OF LTI	S. SHARED CES UP &
2	INCUBATOR SPS. INDIA BEACH PL. SAN FRANCISCO	■	12	RES OFF ☐ RES OFF	E FINISH. S & PARKING RANCE.
3	NEW BLDG. 1780 ARMY ST. SAN FRANCISCO	☐	20	WHS LTI ☐ LT WHS	E FINISH. PARKING.
4	CONTRACTING OWENS CORNING SAN FRANCISCO	■	1	OFF LTI ☐ LT OFF	
5	VACANT HARBOR BAY PK. ALAMEDA	☐		OFF RES ☐ RE OFF	
6	NEW BLDG. HARBOR BAY PK. ALAMEDA	☐		OFF RES ☐ RE OFF	
7	NEW BLDG. McCANDLESS PK. MILPITAS	☐		RTL OFF ☐ OF RTL	URE.
8	NEW BLDG. "A" TECHNOLOGY CTR. SAN JOSE	☐		RTL OFF ☐ OF RTL	ANOS W/ ME.
9	NEW BLDG. "B" TECHNOLOGY CTR. SAN JOSE	☐		RTL OFF ☐ OF RTL	ANOS W/ ME.
10	NEW BLDG. "C" TECHNOLOGY CTR. SAN JOSE	☐		RTL OFF ☐ OF RTL	ANOS W/ ME.
11	NEW BLDG. McCANDLESS PK. MILPITAS	☐		LTI OFF ☐ OF LTI	NT. ISH TILE.
12	NEW BLDG. McCANDLESS PK. MILPITAS	☐		LTI OFF ☐ OF LTI	NT. ISH TILE.
13	NEW BLDG. McCANDLESS PK. MILPITAS	☐		LTI OFF ☐ OF LTI	NT. ISH TILE.
14	NEW - 4 BLDGS. CARNEGIE CTR. SANTA ANA	■	40%	INS OFF ☐ OF RES	
15	NEW - 3 BLDGS. NORTH POINTE TUSTIN	■	26%	INS OFF ☐ OF RES	
16	NEW - 2 BLDGS. BAY TECH. CTR. IRVINE	■	22%	INS OFF ☐ OF RES	WS & RY.
17	NEW - 9 BLDGS. VON KARMON C.C. IRVINE	■	80%	INS OFF ☐ OF RES	
18	NEW - 6 BLDGS. CORPORATE PT. IRVINE	■	14%	INS OFF ☐ OF RES	
19				☐	
20				☐	
21				☐	
SUMMARY **R & D MIXED USES**				LTI OFF ☐ OF RTL	OOWS. CE.

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD

SITE INFORMATION SYMBOLS:

LANDSCAPING

NO LANDSCAPING

$ FEE REQUIRED

■ YES

☐ NO

STREET TYPE SYMBOLS:

↑ / ↑↑ ONE-WAY SINGLE / MULTI-LANE

↓↑ / ↓↓↑↑ TWO-WAY SINGLE / MULTI-LANE

BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

FLAT ROOF

PITCHED ROOF

DECORATIVE SHED

MASS SYMBOLS:

SIMPLE

COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

TILT-UP

FRAME

STEEL FRAME /
PRE-ENGINEERED
METAL BUILDING

CONCRETE: PRE-CAST /
CAST-IN PLACE

UNIT MASONRY

MATERIAL SYMBOLS:

WOOD

CONCRETE

MASONRY

METAL PANELS

STUCCO

R&D MIXED USES

	BASIC INFORMATION				SITE INFORMATION													ACCESSIBILITY						ARCHITECTURAL FORM								
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	FRONT SETBACK (FT.)	REAR SETBACK (FT.)	SIDE SETBACK (FT.)	SIDE SETBACK (FT.)	COURTYARD / ATRIUM	LANDSCAPE - PUBLIC	LANDSCAPE - PRIVATE	STREET PARKING	PUBLIC PARKING LOT FEE REQUIRED NUMBER OF SPACES	PRIVATE PARKING LOT FEE REQUIRED NUMBER OF SPACES	PUBLIC LOADING ZONE	TRUCK LOADING DOCK	NUMBER OF DOORS	STREET TYPE	PEDESTRIAN WALK-UP	PUBLIC TRANSPORTATION	NO. OF ROUTES W/IN 2 BLOCKS	FREEWAY ACCESS W/IN 1/2 MILE	DISTANCE TO FINANCIAL CENTER (MI.)	BUILDING HEIGHT (FT.)	NUMBER OF STORIES	GROSS SQ. FT. X 1000	ROOF TYPE	MASS	TYPE OF CONSTRUCTION	MATERIAL: ROOF	MATERIAL: BUILDING	STYLE & COMMENTS:
1	NEW BLDG. 3600 3RD ST. SAN FRANCISCO	☐	8	LTI OFF ☐ OFF LTI	50	23	☐	☐	■	🌳	🌳	☐	☐	■ 32	☐	■	16	↓↑	☐	■	1	☐	2	25	2	44	▭	▢	▤	N.A.	▤	MODERN STYLE W/ ROUNDED EDGES. SHARED TRUCK COURTYARD • REAR. OFFICES UP & WAREHOUSE DOWN AT EACH SPACE
2	INCUBATOR SPS. INDIA BEACH PL. SAN FRANCISCO	■	12	RES OFF ☐ RES OFF	30	60	☐	30	■	🌳	🌳	■	☐	■ 48	■	■	12	↓↓⁞↑↑	☐	☐		☐	2	24	1	29	▭	▢	▧	N.A.	⊤	CONTEMPORARY STYLE W/ STIPPLE FINISH. OFFICE • FRONT W/ TRUCK DOORS & PARKING • REAR. OFFICE QUALITY APPEARANCE.
3	NEW BLDG. 1780 ARMY ST. SAN FRANCISCO	☐	20	WHS LTI ☐ LTI WHS	47	☐	30	30	☐	🚫	🌳	■	☐	■ 40	☐	■	20	↓↓↑↑	☐	■	1	☐	2	18	1	44	▭	▢	▧	N.A.	⊤	CONTEMPORARY STYLE W/ STIPPLE FINISH. BACK-TO-BACK SPACES. MINIMAL PARKING.
4	CONTRACTING OWENS CORNING SAN FRANCISCO	■	1	OFF LTI ☐ LTI OFF	75	20	90	55	☐	🌳	🌳	☐	☐	■ 52	☐	■	4	↓↓⁞↑↑	☐	☐		■	☐	24	1	45	▭	▢	▧	N.A.	⊤	LARGE MODERN BLDG. W/ EXTENSIVE LANDSCAPE • STREET.
5	VACANT HARBOR BAY PK. ALAMEDA	☐		OFF RES ☐ RES OFF	60	60	50	15	☐	🌳	🌳	☐	☐	■ 250	☐	■	3	↓↑	☐	■	1	☐	1.5	20	2	160	▭	▢	▧	N.A.	▤	MODERN BLDG. W/ TILE GRID FACADE & SMOKED GLAZING.
6	NEW BLDG. HARBOR BAY PK. ALAMEDA	☐		OFF RES ☐ RES OFF	60	60	15	60	■	🌳	🌳	☐	☐	■ 130	☐	■	1	↓↑	☐	■	1	☐	1.5	28	2	80	▭	▢	▧	N.A.	⊤	MODERN BLDG. W/ ROUNDED CORNERS. SPANDREL GLASS.
7	NEW BLDG. McCANDLESS PK. MILPITAS	☐		RTL OFF ☐ OFF RTL	70	70	70	20	■	🚫	🌳	☐	☐	■ 150	☐	■	2	↓↑	☐	☐		■	2	10 24	1	60	⇹	⧉	▧	▤	⊤	MODERN STYLE OFFICE & MODERN WAREHOUSE. NICE SCALE & TEXTURE.
8	NEW BLDG. "A" TECHNOLOGY CTR. SAN JOSE	☐		RTL OFF ☐ OFF RTL	100	150	200	250	■	🚫	🌳	☐	☐	■ 240	☐	■	4	↓↑	☐	☐		■	2	20 30	2	60	▭	▢	▧	N.A.	⊤	CONTEMPORARY STYLE LAYERED BANDS W/ GLASS ATRIUM ENTRIES. HANDSOME.
9	NEW BLDG. "B" TECHNOLOGY CTR. SAN JOSE	☐		RTL OFF ☐ OFF RTL	100	100	100	100	■	🚫	🌳	☐	☐	■ 200	☐	■	2	↓↑	☐	☐		■	2	30	2	58	▭	▢	▧	N.A.	⊤	CONTEMPORARY STYLE LAYERED BANDS W/ GLASS ATRIUM ENTRIES. HANDSOME.
10	NEW BLDG. "C" TECHNOLOGY CTR. SAN JOSE	☐		RTL OFF ☐ OFF RTL	75	75	230	100	■	🚫	🌳	☐	☐	■ 370	☐	■	4	↓↑	☐	☐		■	2	20 30	2	92	▭	▢	▧	N.A.	⊤	CONTEMPORARY STYLE LAYERED BANDS W/ GLASS ATRIUM ENTRIES. HANDSOME.
11	NEW BLDG. McCANDLESS PK. MILPITAS	☐		LTI OFF ☐ OFF LTI	20	130	80	50	■	🚫	🌳	☐	☐	■ 160	☐	■	2	↓↑	☐	☐		■	☐	16 22	1	51	⇹	⧉	▧	▤	⊤	MODERN BLDG. W/ OFFICE • FRONT. RUSTIC OFFICE W/ WOOD & SPANISH TILE.
12	NEW BLDG. McCANDLESS PK. MILPITAS	☐		LTI OFF ☐ OFF LTI	30	60	60	60	■	🚫	🌳	☐	☐	■ 130	☐	■	2	↓↑	☐	☐		■	☐	16 22	1	36	⇹	⧉	▧	▤	⊤	MODERN BLDG. W/ OFFICE • FRONT. RUSTIC OFFICE W/ WOOD & SPANISH TILE.
13	NEW BLDG. McCANDLESS PK. MILPITAS	☐		LTI OFF ☐ OFF LTI	30	60	50	70	■	🚫	🌳	☐	☐	■ 140	☐	■	2	↓↑	☐	☐		■	☐	16 22	1	40	⇹	⧉	▧	▤	⊤	MODERN BLDG. W/ OFFICE • FRONT. RUSTIC OFFICE W/ WOOD & SPANISH TILE.
14	NEW - 4 BLDGS. CARNEGIE CTR. SANTA ANA	■	40%	INS OFF ☐ OFF RES	30	70	100	100	☐	🌳	🌳	☐	☐	■ 630	☐	■	2	↓↓↑↑	☐	☐		■	☐	24	2	159	▭	⧉	▧	N.A.	⊤	MODERN BLDG. W/ STRIP WINDOWS & GLASS ENTRY.
15	NEW - 3 BLDGS. NORTH POINTE TUSTIN	■	26%	INS OFF ☐ OFF RES	30	70	100	100	☐	🌳	🌳	☐	☐	■ 550	☐	☐		↓↓↑↑	☐	☐		■	☐	24	2	138	▭	⧉	▧	N.A.	⊤	MODERN BLDG. W/ STRIP WINDOWS & GLASS ENTRY.
16	NEW - 2 BLDGS. BAY TECH. CTR. IRVINE	■	22%	INS OFF ☐ OFF RES	30	70	100	100	☐	🌳	🌳	☐	☐	■ 440	☐	■	2	↓↓↑↑	☐	☐		■	☐	24	2	110	▭	⧉	▧	N.A.	▤	MODERN BLDG. W/ SQUARE WINDOWS & ONE SIDE CURVED W/ GLASS ENTRY.
17	NEW - 9 BLDGS. VON KARMON C.C. IRVINE	■	80%	INS OFF ☐ OFF RES	30	70	100	100	☐	🌳	🌳	☐	☐	■ 1820	☐	■	9	↓↓↑↑	☐	☐		■	☐	24	2	455	▭	⧉	▧	N.A.	⊤	MODERN BLDG. W/ STRIP WINDOWS & GLASS ENTRY.
18	NEW - 8 BLDGS. CORPORATE PT. IRVINE	■	14%	INS OFF ☐ OFF RES	30	70	100	100	☐	🌳	🌳	☐	☐	■ 670	☐	■	2	↓↓↑↑	☐	☐		■	☐	24	2	167	▭	⧉	▧	N.A.	⊤	MODERN BLDG. W/ STRIP WINDOWS & GLASS ENTRY.
19				☐																												
20				☐																												
21				☐																												
SUMMARY **R & D MIXED USES**				LTI OFF ☐ OFF RTL	50	65	80	75	■	🌳	🌳	☐	☐	■ 336	☐	■	5	↓↓↑↑	☐	☐	N.A.	■	2	28	2	100	▭	▢	▧	N.A.	⊤	MODERN BUILDING W/ STRIP WINDOWS. LOW OFFICE BUILDING APPEARANCE.

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRD	RAILROAD

SITE INFORMATION SYMBOLS:

🌳	LANDSCAPING
🚫	NO LANDSCAPING
$	FEE REQUIRED
■	YES
☐	NO

STREET TYPE SYMBOLS:

↑ / ↑↑	ONE-WAY SINGLE / MULTI-LANE
↓↑ / ↓↓↑↑	TWO-WAY SINGLE / MULTI-LANE
↓⁞↑ / ↓↓⁞↑↑	BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

▭	FLAT ROOF
⌂	PITCHED ROOF
⇹	DECORATIVE SHED

MASS SYMBOLS:

▢	SIMPLE
⧉	COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

▧	TILT-UP
▱	FRAME
Ɪ	STEEL FRAME / PRE-ENGINEERED METAL BUILDING
⊤	CONCRETE: PRE-CAST / CAST-IN PLACE
▤	UNIT MASONRY

MATERIAL SYMBOLS:

▱	WOOD
⊤	CONCRETE
▤	MASONRY
Ɪ	METAL PANELS
◩	STUCCO

3.1.2 R & D/ANALYSIS

BASIC INFORMATION: The projects studied were occupied by businesses engaged in video, chemical, paint, biomedical, electronics, and computer hardware and software development and testing. Most of the buildings were partially occupied.

Two distinctions are to be made concerning adjacent uses. In the large "campus" type plans, R & D buildings are generally located next to office uses, while within more urban areas they are not site specific and all types of uses are contiguous. It would then be likely that R & D could be developed at Mission Bay. Landscaping, neighborhood retail, or the use of boulevards could serve as a buffer between R & D and housing uses. It is unlikely that a "campus" type of development would maintain the urban character of the site and the environs, or be sufficient to meet proposed development limits on the limited lands available for this use.

SITE INFORMATION: Typically, setbacks respond to the location of parking. Most often, parking was provided in front of or at the side of buildings, with resulting 60 to 100 foot setbacks, with the rear setback determined by truck loading requirements. In urban situations, the front setbacks approached zero feet and the buildings were located adjacent to the sidewalk. About half of the buildings featured courtyard or atrium spaces. Such spaces appear to be desirable but not necessary for development. Most R & D buildings had landscaped parking areas, and some public area landscaping, although in urban areas this was generally limited to street trees and parkways. Within urban areas, street parking was allowed. Public parking was usually not found. Private parking was minimal in urban areas, (less than 1 space per 1,000 square feet) and ranged from three to four spaces per 1,000 square feet in suburban sites. Public loading zones were not available. Off-street truck loading was available and was usually limited to two or four typical loading docks.

ACCESSIBILITY: Typically, multi-lane streets were utilized in newer projects and the streets were always two-way. Pedestrian access appeared not to be a requirement. Non-intensive public transportation was available at most sites. Direct freeway access appeared not to be necessary. Nor was there a requirement for adjacency to the city center.

ARCHITECTURAL FORM: In suburban areas, buildings were one to one and one-half stories, and two stories within the City. Building heights ranged from 22 to 30 feet, with the first floor having a minimum clear height of 11 feet. Tilt-up construction was typical of newer projects. Offices occasionally were appended to the front. Buildings typically had flat roofs with low parapets. Floor plates were rectangular. Typically, the buildings were devoid of architectural style and tended to be modern quasi-warehouses with more or less continuous strip fenestration and walls of painted concrete. The trend is now toward the more creative uses of concrete and other finish materials. Often there is a higher proportion of fenestration, especially at the entries.

3.1.3 R & D/PROTOTYPES

LOW DENSITY R & D:

HIGH DENSITY R & D:

RESEARCH & DEVELOPMENT AND LIGHT INDUSTRIAL USES

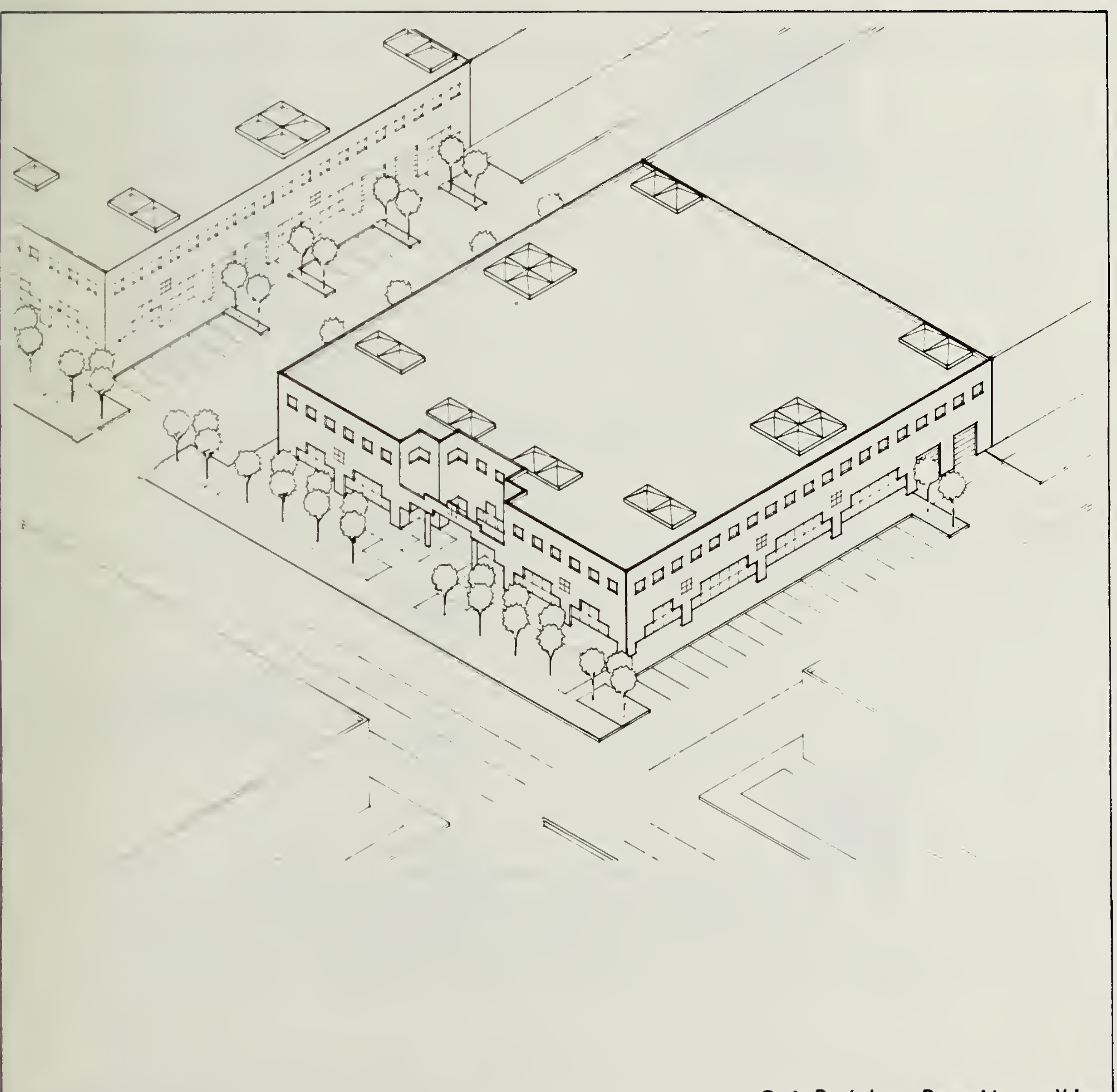
3.1 Research and Development

PROTOTYPE: R & D / Low Density

BUILDING PERCENTAGE LOT COVERAGE: 59%
USABLE OPEN SPACE: 18%
BLOCK SIZE: 635'x 360' (5.25 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE: 33,917 square feet/acre
FLOOR AREA RATIO: 1.16
FRONT SETBACK: 25'
REAR SETBACK: 0'
SIDE SETBACK: 36'-0" / 24'-0"
PUBLIC LANDSCAPING: Street trees
PRIVATE LANDSCAPING: At parking and front buffer
PARKING LOCATION: Street and surface lots
PARKING RATIO: 1:1307
PARKING SPACES: 34
NUMBER OF PARKING FLOORS: Surface

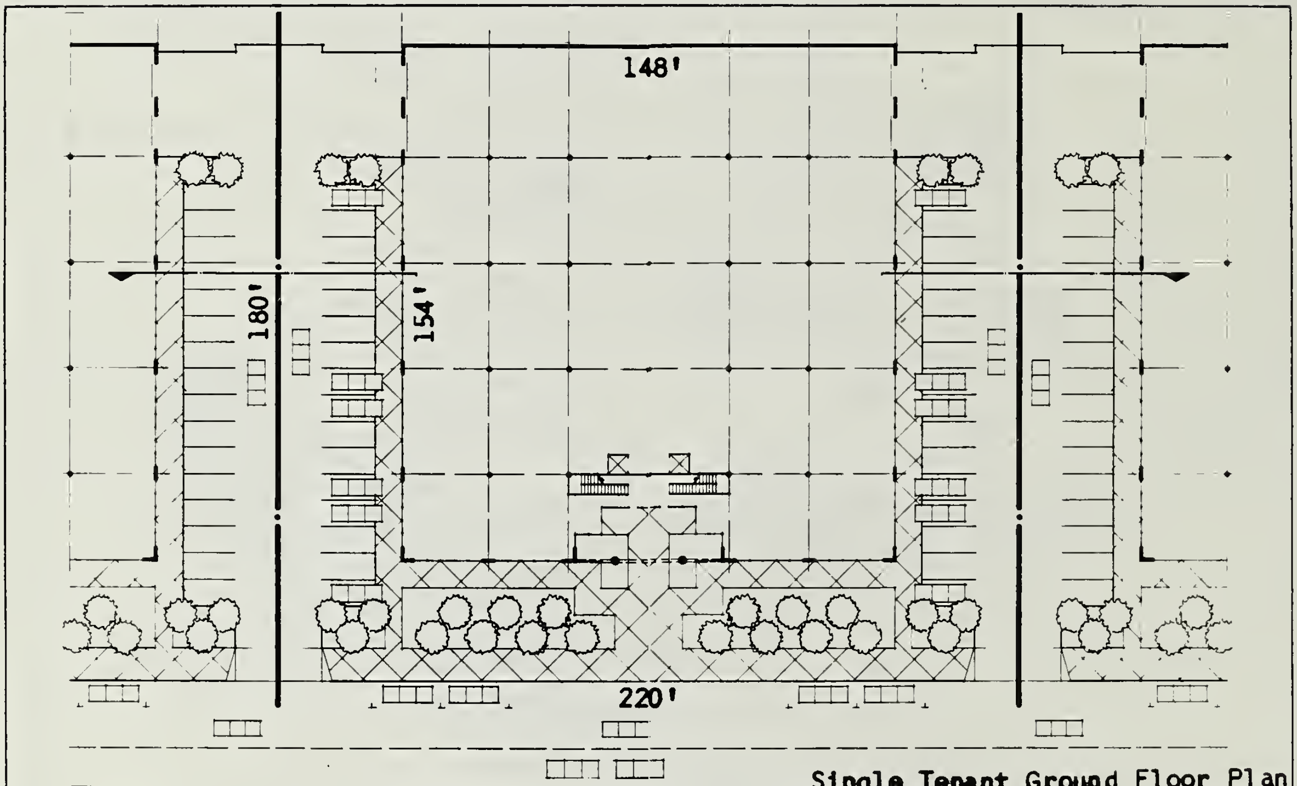
BUILDING FORM: Monolithic without atrium/courtyard
TOTAL LEASABLE FLOOR AREA: 44,432 square feet
TYPICAL FLOOR PLATE AREA: 22,216 square feet
TOTAL NUMBER OF FLOORS: 2
BUILDING HEIGHT: 34'
FLOOR-TO-FLOOR HEIGHT FIRST FLOOR: 18'
FLOOR-TO-FLOOR HEIGHT TYPICAL: 13'
LEASE DEPTHS: 74'

COMMENTARY: Loading at parking lots, street trees as buffer to adjacent uses.

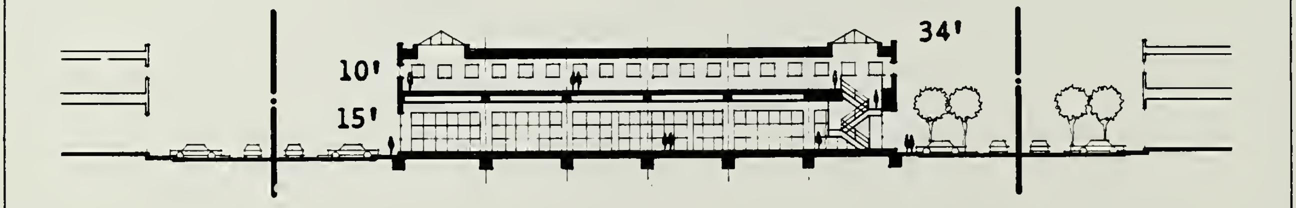


R & D / Low Density: View

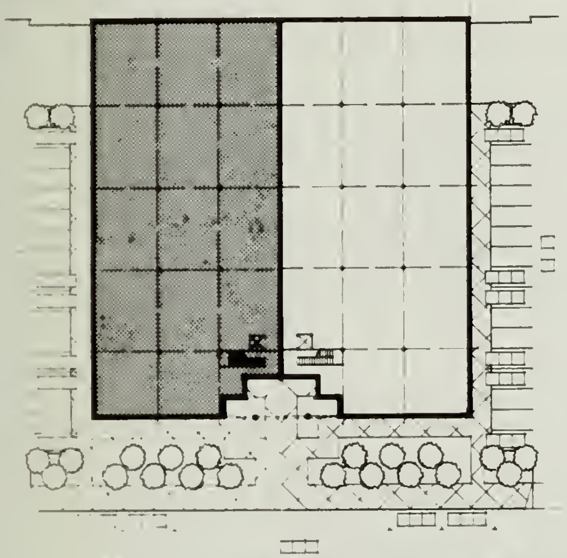
3.1 Research and Development



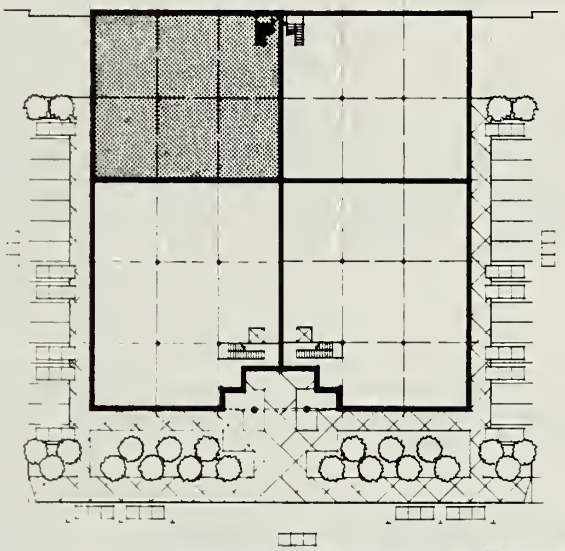
Single Tenant Ground Floor Plan
Second Floor Plan Similar



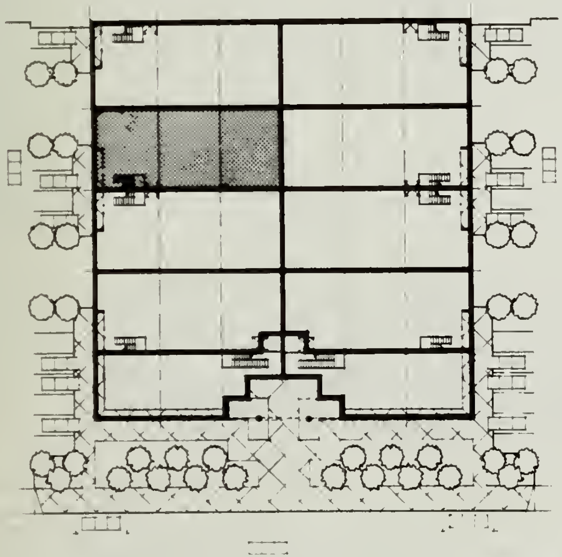
Section



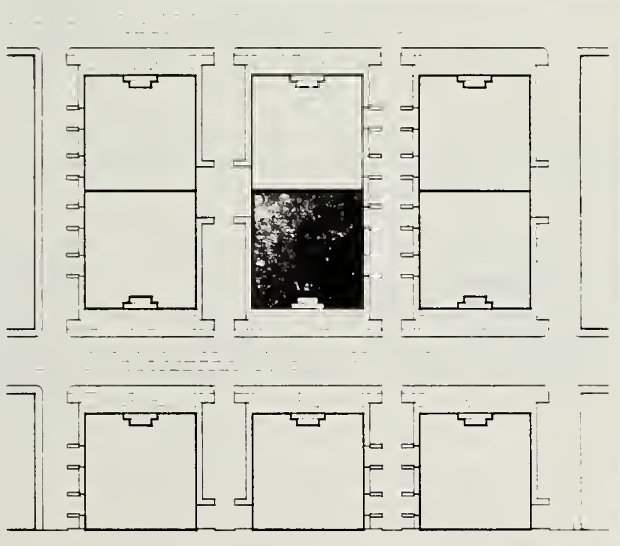
Subdivision Plan: 2 Tenants
22,216 Square Feet / User



Subdivision Plan: 4 Tenants
11,108 Square Feet / User



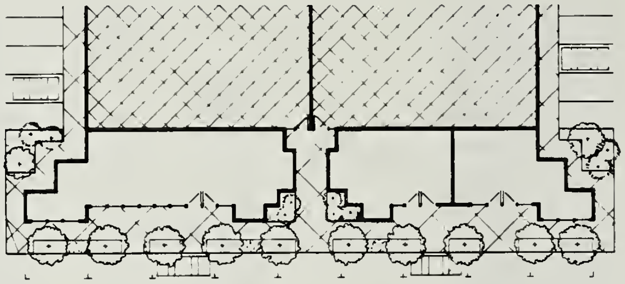
Subdivision Plan: Multi Tenants
4,443 Square Feet / User



Full Block Site Plan

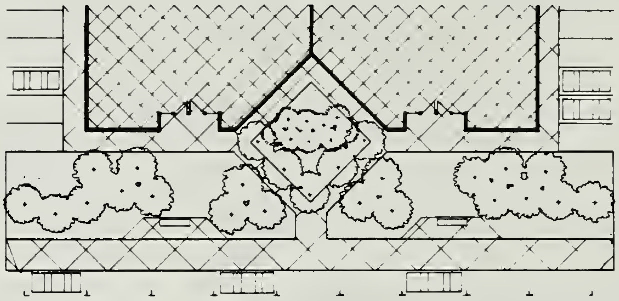
Buffer Plan No. 1

- 3' parkway w/street trees
- Sidewalk
- Neighborhood retail uses
- Prototypical R & D building w/30' front set back and shared recessed entry (for 2 tenants)



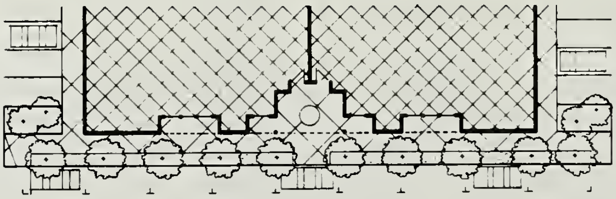
Buffer Plan No. 2

- 6' sidewalk
- 30' landscape area w/seating areas
- Prototypical R & D building w/30' front setback and front entry (for 2 tenants)



Buffer Plan No. 3

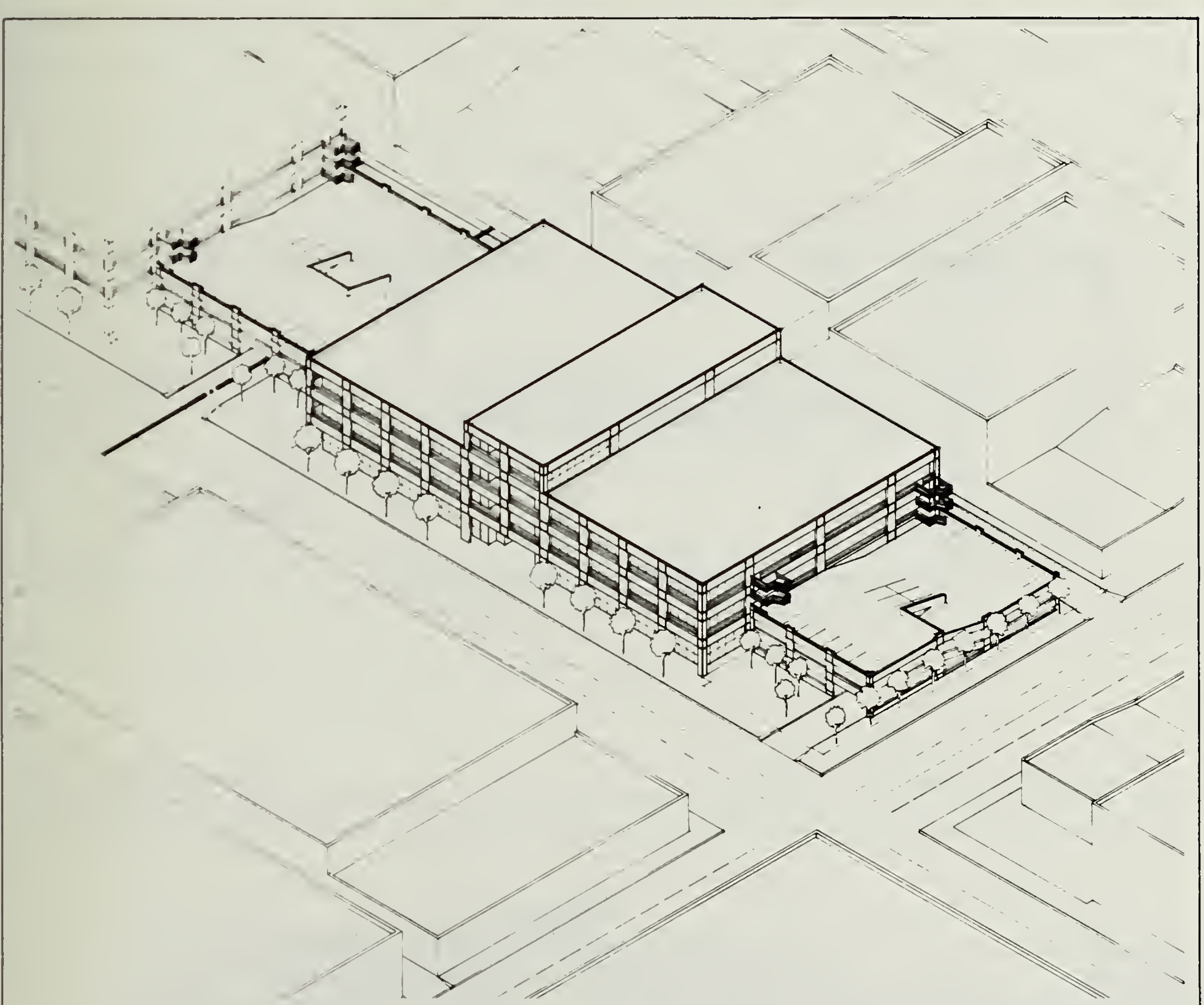
- 3' parkway w/street trees
- 6' sidewalk
- Prototypical R & D building w/zero setback and shared recessed entry (for 2 tenants)



RESEARCH & DEVELOPMENT AND LIGHT INDUSTRIAL USES

3.1 Research and Development

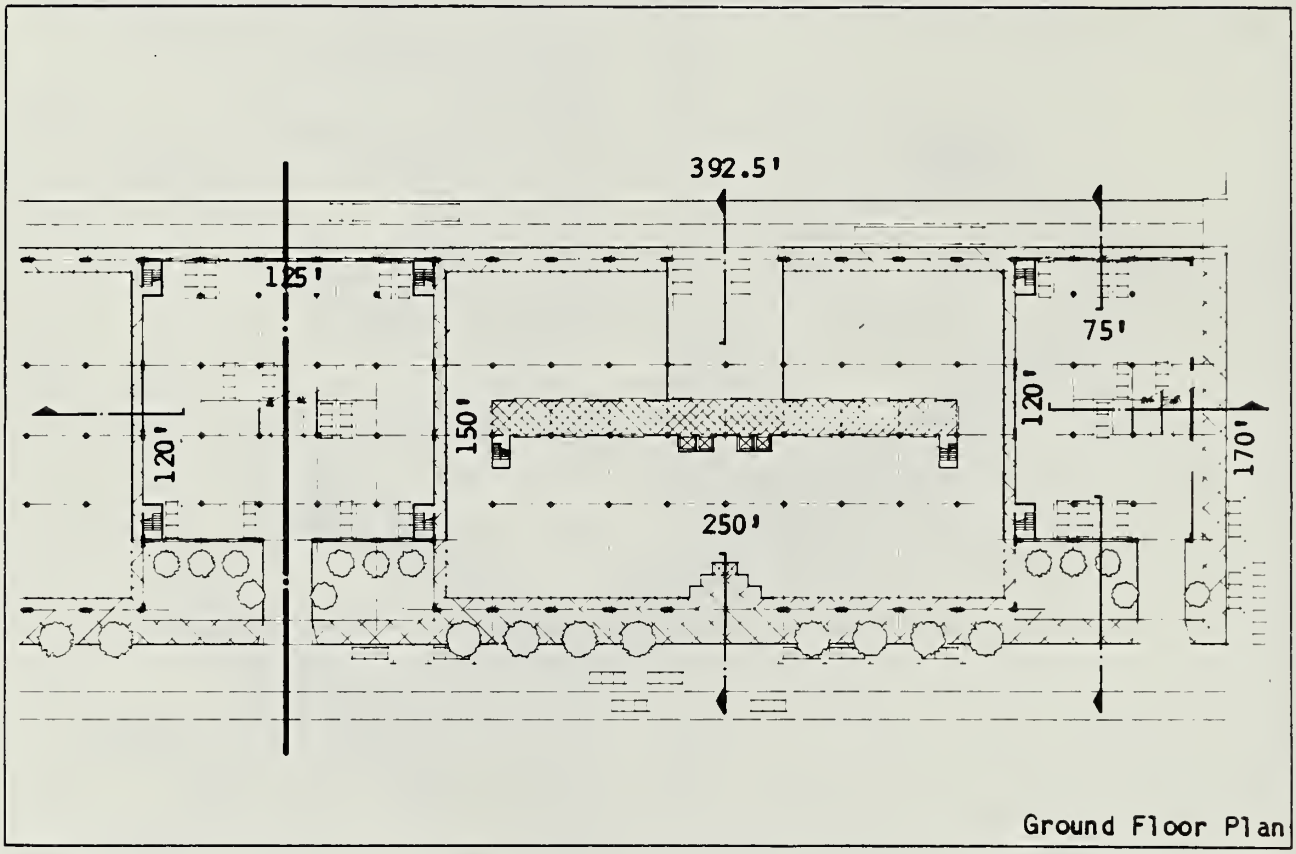
PROTOTYPE:	R & D / High Density
BUILDING PERCENTAGE LOT COVERAGE:	56%
USABLE OPEN SPACE:	10%
BLOCK SIZE:	785' x 340' (6.13 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE:	76,346 square feet/acre
FLOOR AREA RATIO:	2.63
FRONT SETBACK:	5'
REAR SETBACK:	15'
SIDE SETBACK:	5'
PUBLIC LANDSCAPING:	Street trees
PRIVATE LANDSCAPING:	At parking garage entrances
PARKING LOCATION:	Between buildings in parking structures
PARKING RATIO:	1:1115
PARKING SPACES:	105
NUMBER OF PARKING FLOORS:	3 levels
BUILDING FORM:	Monolithic with partial fourth floor and attached parking within no atrium/courtyard
TOTAL LEASABLE FLOOR AREA:	117,000 square feet
TYPICAL FLOOR PLATE AREA:	54,000
TOTAL NUMBER OF FLOORS:	3 with penthouse
BUILDING HEIGHT:	65'
FLOOR-TO-FLOOR HEIGHT FIRST FLOOR:	18'
FLOOR-TO-FLOOR HEIGHT TYPICAL:	15'
LEASE DEPTHS:	70'
COMMENTARY:	Possiblity of recreational uses on top of parking structure, landscape user to buffer parking.



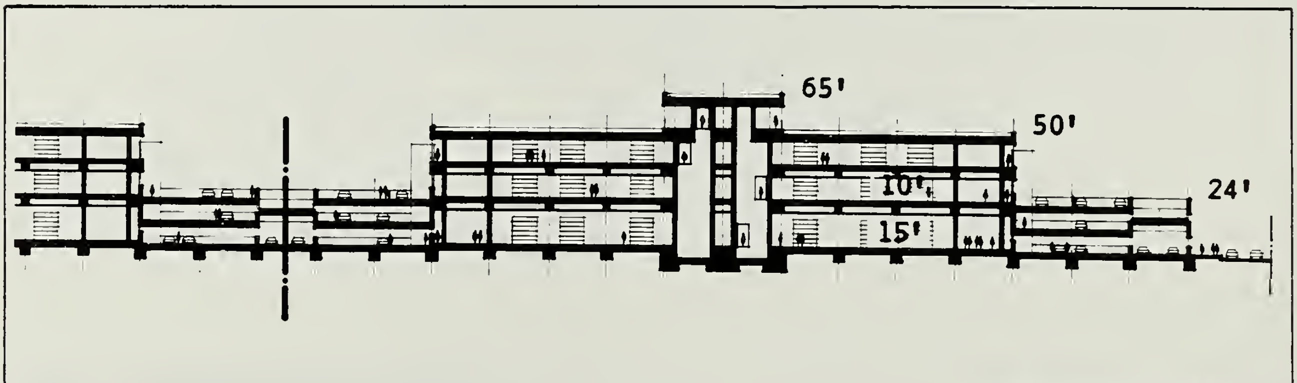
R & D / High Density: View

RESEARCH & DEVELOPMENT AND LIGHT INDUSTRIAL USES

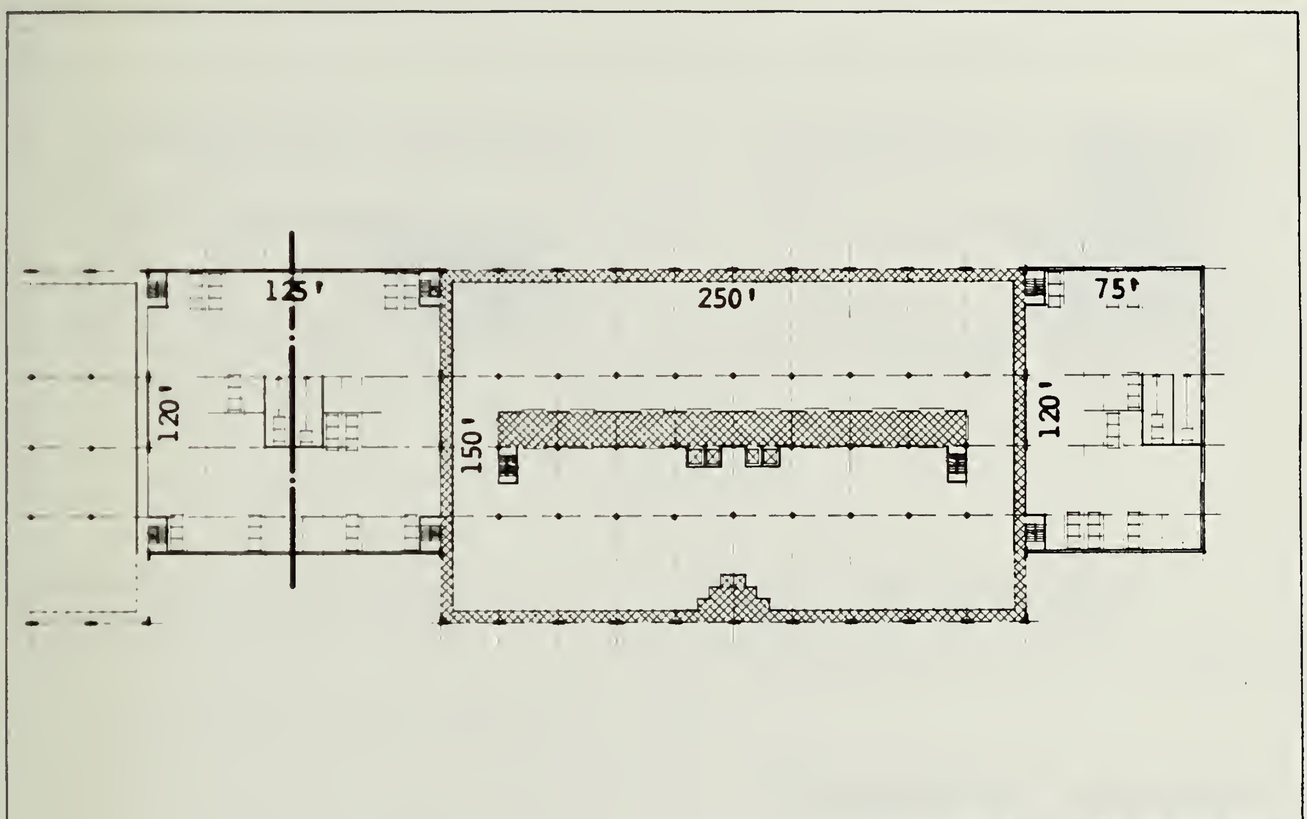
3.1 Research and Development



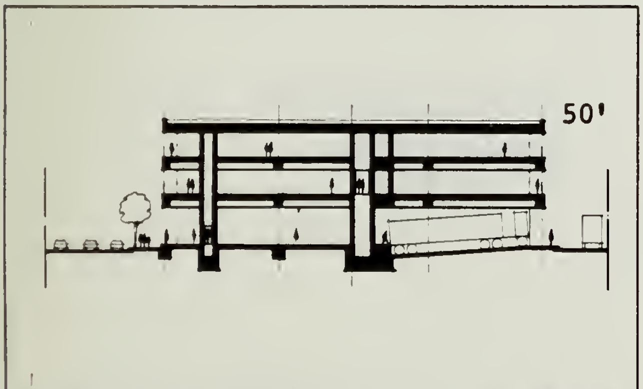
Ground Floor Plan



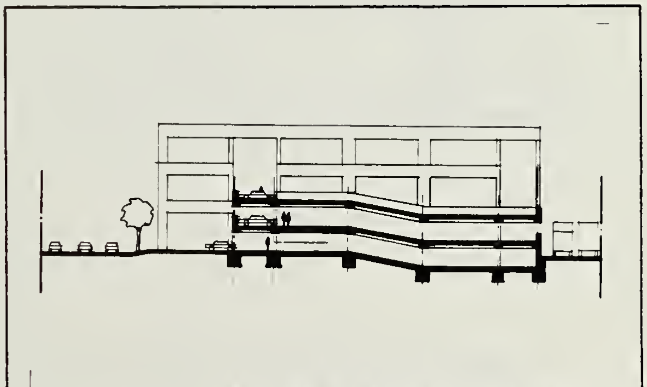
Longitudinal Section



Typical Upper Level Floor Plan



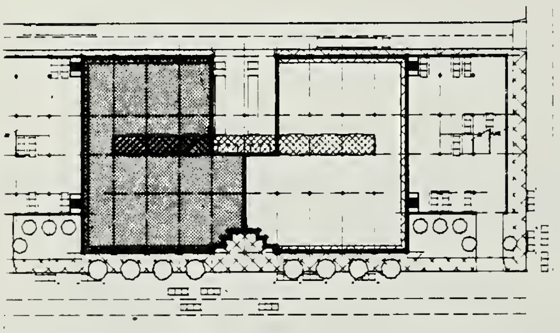
Transverse Building Section



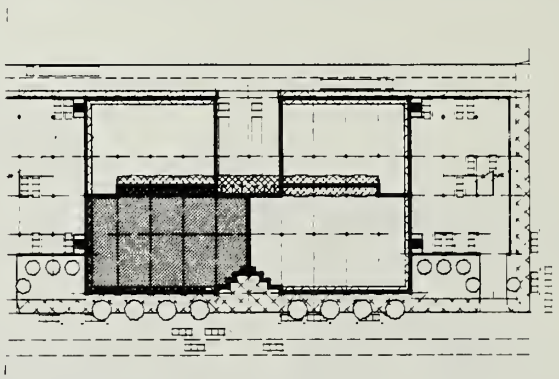
Transverse Parking Section

RESEARCH & DEVELOPMENT AND LIGHT INDUSTRIAL USES

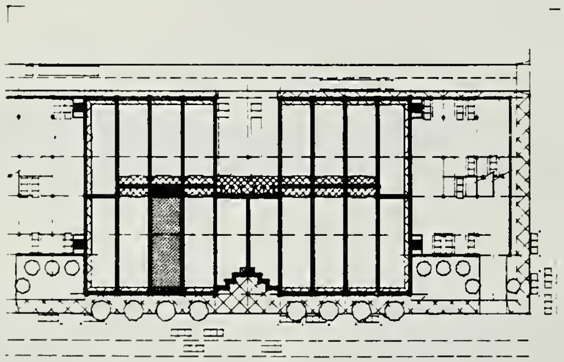
3.1 Research and Development



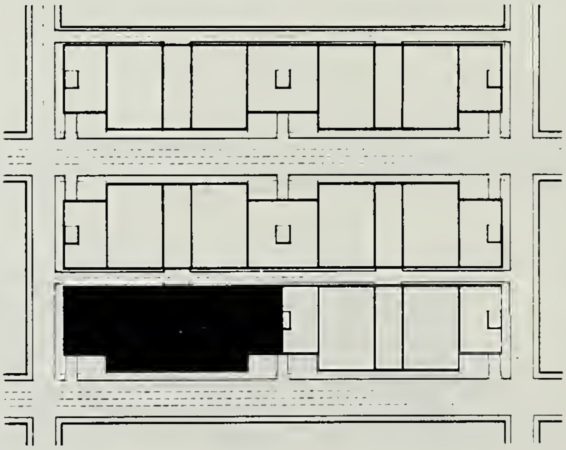
Subdivision Plan: 2 Tenants
18,250 Square Feet / User



Subdivision Plan: 4 Tenants
9,125 Square Feet / User



Subdivision Plan: Multi Tenants
1,875 Square Feet / User



Full Block Site Plan

3.2 LIGHT INDUSTRIAL USES:

3.2.1 LIGHT INDUSTRIAL/DOCUMENTATION OF EXISTING BUILDINGS:

A total of 13 light industrial buildings were studied, of which 5 were located in San Francisco.

LIGHT INDUSTRIAL

	BASIC INFORMATI				
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS		
1	LITHOGRAPHY 333 PT. SAN BRUNO S. SAN FRANCISCO	■	1	W LTI W	L WAREHOUSE RED LANDSCAPE.
2	VARIOUS LT. MFG. 2200 PALOU SAN FRANCISCO	■	15	L LTI L	ATOR SPACES ACCESS ●
3	VACANT 2103 THIRD ST. SAN FRANCISCO	☐	N.A.	RL LTI O	RONT FACADE. R. BLAND
4	INSTRUMENT MFG. 654 MINNESOTA SAN FRANCISCO	■	1	R OFF O	NG FACADE - ILDING.
5	MARINE REPAIR 178 TOWNSEND SAN FRANCISCO	■	1	R LTI L	LDG. OR ●
6	DOOR MFG. 269 POTRERO SAN FRANCISCO	■	1	O SHR S	ESTING K DOORS.
7	SHEET MTL. MFG. 2919 SEVENTH ST. BERKELEY	■	1	R OFF O	LDG.. PLAIN ANCE ● RD.
8	CONC. SPECIAL'S. 1823 FOURTH ST. BERKELEY	■	1	R RES RT	DOOR
9	DIE CASTING 4065 HOLLIS OAKLAND	■	1	LT WHS LT	W/
10	CABINET MAKERS 4015 HOLLIS OAKLAND	■	1	L LTI LT	
11	VARIOUS 27700 INDUST. WY. HAYWARD	■	4	RT OFF LT	LDG. W/ DRNA- OES OF BLDG.
12	ELECTRONICS MFG. 25515 INDUST. WY. HAYWARD	■	2	RE RES OF	IVE SITE.
13	PRINTING/SIGNS 25710 INDUST. WY. HAYWARD	■	2	RE LTI OF	SITE.
14					
15					
16					
17					
18					
19					
20					
21					
SUMMARY LIGHT INDUSTRIAL USES			2	RES LTI OFF	LDINGS OFFICES

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD

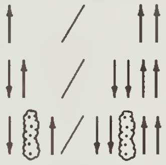
SITE INFORMATION SYMBOLS:

LANDSCAPING

NO LANDSCAPING

$	FEE REQUIRED
■	YES
☐	NO

STREET TYPE SYMBOLS:



ONE-WAY SINGLE / MULTI-LANE

TWO-WAY SINGLE / MULTI-LANE

BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

FLAT ROOF

PITCHED ROOF

DECORATIVE SHED

MASS SYMBOLS:

SIMPLE

COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

TILT-UP

FRAME

STEEL FRAME / PRE-ENGINEERED METAL BUILDING

CONCRETE: PRE-CAST / CAST-IN PLACE

UNIT MASONRY

MATERIAL SYMBOLS:

WOOD

CONCRETE

MASONRY

METAL PANELS

STUCCO

LIGHT INDUSTRIAL USES

	BASIC INFORMATION				SITE INFORMATION													ACCESSIBILITY						ARCHITECTURAL FORM								
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	FRONT SETBACK (FT.)	REAR SETBACK (FT.)	SIDE SETBACK (FT.)	SIDE SETBACK (FT.)	COURTYARD / ATRIUM	LANDSCAPE - PUBLIC	LANDSCAPE - PRIVATE	STREET PARKING	PUBLIC PARKING LOT FEE REQUIRED NUMBER OF SPACES	PRIVATE PARKING LOT FEE REQUIRED NUMBER OF SPACES	PUBLIC LOADING ZONE	TRUCK LOADING DOCK	NUMBER OF DOORS	STREET TYPE	PEDESTRIAN WALK-UP	PUBLIC TRANSPORTATION	NO. OF ROUTES W/IN 2 BLOCKS	FREEWAY ACCESS W/IN 1/2 MILE	DISTANCE TO FINANCIAL CENTER (MI.)	BUILDING HEIGHT (FT.)	NUMBER OF STORIES	GROSS SQ. FT. X 1000	ROOF TYPE	MASS	TYPE OF CONSTRUCTION	MATERIAL: ROOF	MATERIAL: BUILDING	STYLE & COMMENTS:
1	LITHOGRAPHY 33 PT. SAN BRUNO S. SAN FRANCISCO	■	1	WHS LTI □ LTI WHS	35	20	40	40	□	🌳	🌳	□	□	□ 30	□	■	4	↓↑	□	■	2	□	□	16 30	1	21	⊓	▢	⟋	N.A.	⊤	MODERN OFFICE & INDUSTRIAL WAREHOUSE W/ CORPORATE FEEL. MANICURED LANDSCAPE.
2	VARIOUS LT. MFG. 2200 PALOU SAN FRANCISCO	■	15	LTI LTI □ LTI LTI	14	□	45	20	□	🌳	🚫	■	□	■ 75	□	■	15	↓↓↑↑	□	■	2	■	□	21	2	72	⊓	▢	⟋	N.A.	⊤	INTERNATIONAL STYLE INCUBATOR SPACES W/ OFFICE ● FRONT & TRUCK ACCESS ● REAR. RUN DOWN APPEARANCE.
3	VACANT 2103 THIRD ST. SAN FRANCISCO	□	N.A.	RES LTI □ RES OFF	□	30	□	□	□	🚫	🚫	■	□	□	□	■	3	↓↓↑↑	□	■	2	■	1	22	2	23	⊓	⌐	▦	N.A.	▦	MODERN BLDG. W/ STUCCO ● FRONT FACADE. TRUCK DOORS ● FRONT & REAR. BLAND APPEARANCE.
4	INSTRUMENT MFG. 554 MINNESOTA SAN FRANCISCO	■	1	RES OFF □ OFF OFF	□	20	□	□	□	🌳	🌳	■	□	■ 30	□	■	2	↓↑	□	■	3	■	1	34	2	132	⊓	▢	⟋	N.A.	⊤	MODERN STYLE W/ INTERESTING FACADE - GLASS BLOCK. ATTRACTIVE BUILDING.
5	MARINE REPAIR 178 TOWNSEND SAN FRANCISCO	■	1	RTL LTI □ LTI LTI	□	□	□	□	□	🚫	🚫	■	□	□	□	■	1	↓↓↑↑	□	■	5	■	.5	24	1	19	⊓	▢	▦	N.A.	▦	INDUSTRIAL STYLE MASONRY BLDG. GOOD LOOKING. ONE TRUCK DOOR ● CENTER OF FRONT FACADE.
6	DOOR MFG. 259 POTRERO SAN FRANCISCO	■	1	OFF SHR □ SHR SHR	□	2	□	□	□	🌳	🚫	■	□	□	■	■	7	↓↓↑↑	□	■	3	■	.5	32	2	52	⊓	▢	⊤	N.A.	⊤	INDUSTRIAL STYLE - UNINTERESTING APPEARANCE. PLENTY OF TRUCK DOORS.
7	SHEET MTL. MFG. 2919 SEVENTH ST. BERKELEY	■	1	RES OFF □ OFF OFF	35	20	10	40	□	🚫	🚫	■	□	■ 10	□	■	1	↓↑	□	■	4	□	□	12	1	12	⌂	▢	I	I	I	INDUSTRIAL "BUTLER" TYPE BLDG.. PLAIN BLDG. W/ TACK-ON CUBE ENTRANCE ● FRONT. ADJACENT STORAGE YARD.
8	CONC. SPECIAL'S. 1823 FOURTH ST. BERKELEY	■	1	RES RES □ RTL RTL	16	□	2	□	□	🚫	🚫	■	□	■ 4	□	■	1	↓↑	□	■	1	□	□	20	1	4	⊓	▢	▦	N.A.	▦	MODERN CONCRETE BLOCK BLDG. UNASSUMING. PARKING, TRUCK DOOR & ENTRANCE IN FRONT.
9	DIE CASTING 4055 HOLLIS OAKLAND	■	1	LTI WHS □ WHS LTI	8	□	□	□	□	🚫	🚫	■	□	■ 16	□	■	5	↓↑	□	■	1	□	1	24	1	68	⊓	▢	⟋	N.A.	⊤	HANDSOME INDUSTRIAL BLDG. W/ WOODGRAIN TEXTURE ● FRONT
10	CABINET MAKERS 4015 HOLLIS OAKLAND	■	1	LTI LTI □ LTI LTI	10	70	33	38	□	🚫	🚫	■	□	■ 14	■	■	1	↓↑	□	■	1	□	1	21	1	3	⊓	▢	⟋	N.A.	⊤	MODERN, CLEAN BASIC BLDG. W/ AMPLE YARD AREA.
11	VARIOUS 27700 INDUST. WY. HAYWARD	■	4	RTL OFF □ LTI LTI	16	21	28	28	□	🚫	🌳	□	□	■ 30	□	■	9	↓↓↑↑	□	□	N.A.	■	□	20	1	18	⊓	▢	⟋	N.A.	⊤	MODERN / INDUSTRIAL TYPE BLDG. W/ ORNAMENTATION. PARKING ON 3 SIDES OF BLDG.
12	ELECTRONICS MFG. 25515 INDUST. WY. HAYWARD	■	2	RES RES □ LTI OFF	25	24	15	□	□	🚫	🚫	□	□	■ 35	■	■	4	↓↓⁞↑↑	□	□	N.A.	□	□	16 20	1	13	⊓	▢	⟋	N.A.	⊤	MODERN STRUCTURE W/ EXTENSIVE LANDSCAPE ● FRONT. CORNER SITE.
13	PRINTING/SIGNS 25710 INDUST. WY. HAYWARD	■	2	RES LTI □ LTI OFF	25	□	□	□	□	🌳	🌳	□	□	■ 20	□	■	6	↓↓↑↑	□	□	N.A.	■	□	20	1	8	⊓	▢	⟋	N.A.	⊤	MODERN BLDG. ON VERY TIGHT SITE.
14				□																												
15				□																												
16				□																												
17				□																												
18				□																												
19				□																												
20				□																												
21				□																												
SUMMARY	**LIGHT INDUSTRIAL USES**		2	RES LTI □ LTI OFF	15	15	15	10	□	🚫	🚫	■	□	■ 20	□	■	5	↓↓↑↑	□	■	2	■	□	23	1	34	⊓	▢	⟋	N.A.	⊤	INDUSTRIAL STYLE MODERN BUILDINGS WITH APPENDAGED OFFICES OR OFFICES LOCATED ON MEZZANINE.

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD

SITE INFORMATION SYMBOLS:

🌳	LANDSCAPING
🚫	NO LANDSCAPING
$	FEE REQUIRED
■	YES
□	NO

STREET TYPE SYMBOLS:

↑ / ↑↑	ONE-WAY SINGLE / MULTI-LANE
↓↑ / ↓↓↑↑	TWO-WAY SINGLE / MULTI-LANE
↓⁞↑ / ↓↓⁞↑↑	BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

⊓	FLAT ROOF
⌂	PITCHED ROOF
⇔	DECORATIVE SHED

MASS SYMBOLS:

▢	SIMPLE
⌐	COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

⟋	TILT-UP
▱	FRAME
I	STEEL FRAME / PRE-ENGINEERED METAL BUILDING
⊤	CONCRETE: PRE-CAST / CAST-IN PLACE
▦	UNIT MASONRY

MATERIAL SYMBOLS:

▱	WOOD
⊤	CONCRETE
▦	MASONRY
I	METAL PANELS
◠	STUCCO

3.2.2 LIGHT INDUSTRIAL/ANALYSIS

BASIC INFORMATION: The projects studied were occupied by businesses engaged in various trades, both manufacturing and warehousing. The buildings were usually located adjacent to other light industrial uses. The buildings were typically single-tenanted.

SITE INFORMATION: Front setbacks were generally limited to landscaping strips; rear setbacks were of alley widths (50 feet), often serving loading activities, and the side setbacks were usually reserved for parking uses. Few light industrial buildings featured either public or private landscaping. None of the buildings had atrium spaces or courtyards; however, because the footprints of the buildings were so large, skylights or clerestory lighting was often utilized to provide light to the interior space. Office uses were often accommodated in the front or on a mezzanine. Street parking was available, and on the urban sites, on-street truck loading areas existed. Parking ratios were small (approx. 1 per 800 square feet), and public lots were not found. Off-street loading was found and there usually was one dock for every 5,000 to 10,000 square feet.

ACCESSIBILITY: Street widths varied between two and four lanes and were usually two-way. Pedestrian access appeared not to be a requirement. Non-intensive public transportation was available at most sites. Approximately one-half of the buildings were located within one-half (0.5) mile of a freeway interchange. Typically, these buildings were not located near the city center and appeared not to relate to it.

ARCHITECTURAL FORM: Most buildings were one story of 15 to 18 feet clear height. A few examples of two story buildings were documented but these were older warehouse buildings that had been renovated. Tilt-up construction was typical of the newer projects. Buildings of this type usually had flat roofs and wall finishes of painted concrete or metal panels. Windows were usually found only at the office areas and were likely to take the form of punched openings.

3.2.3 LIGHT INDUSTRIAL/PROTOTYPES

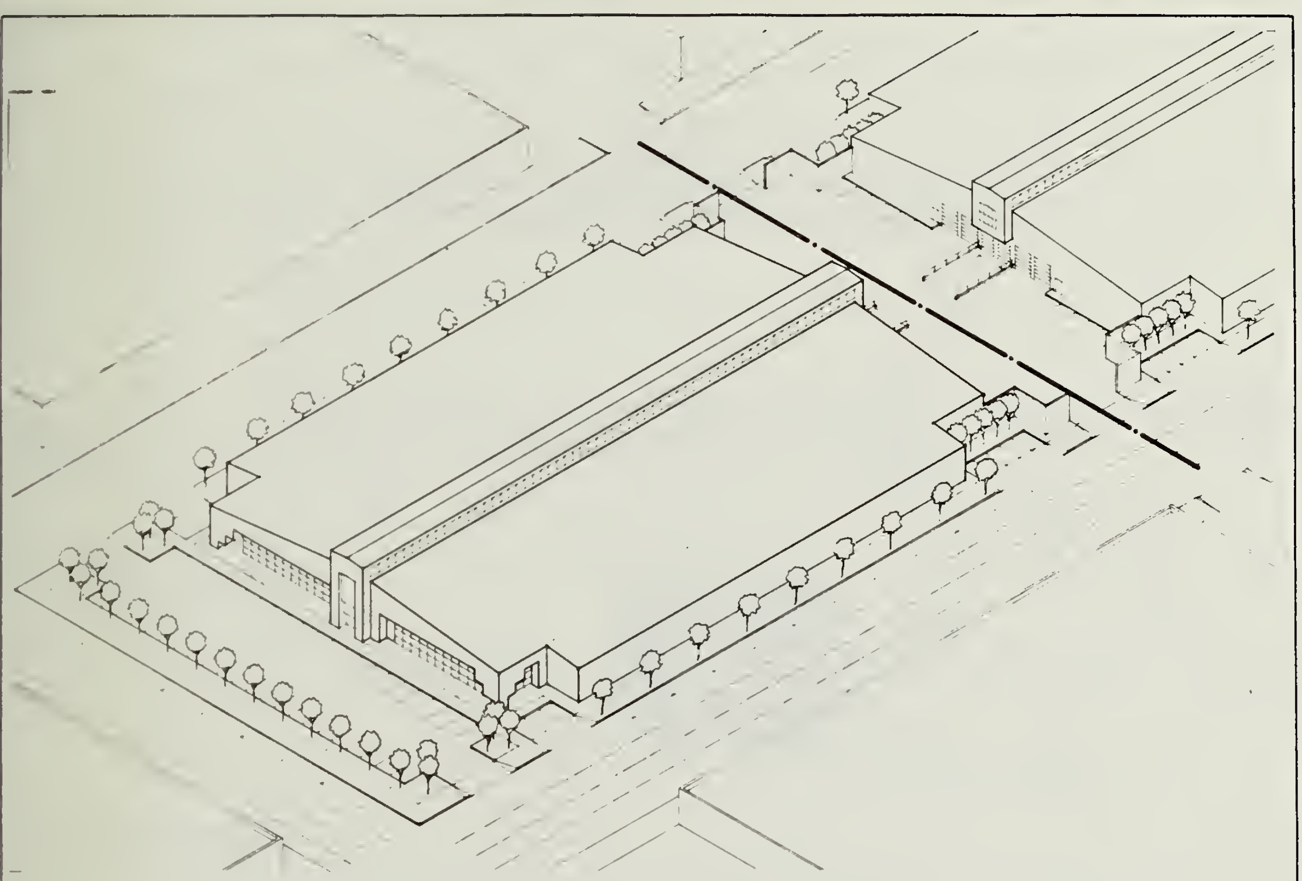
3.2 Light Industrial Uses

PROTOTYPE: Light Industrial

BUILDING PERCENTAGE LOT COVERAGE: 71%
USABLE OPEN SPACE: 0%
BLOCK SIZE: 850' x 230' (4.50 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE: 15,367 square feet/acre
FLOOR AREA RATIO: 0.71
FRONT SETBACK: 75'
REAR SETBACK: 50'
SIDE SETBACK: 5'
PUBLIC LANDSCAPING: Street trees
PRIVATE LANDSCAPING: Buffer parking and loading areas
PARKING LOCATION: Surface lots
PARKING RATIO: 1:985
PARKING SPACES: 70
NUMBER OF PARKING FLOORS: Surface

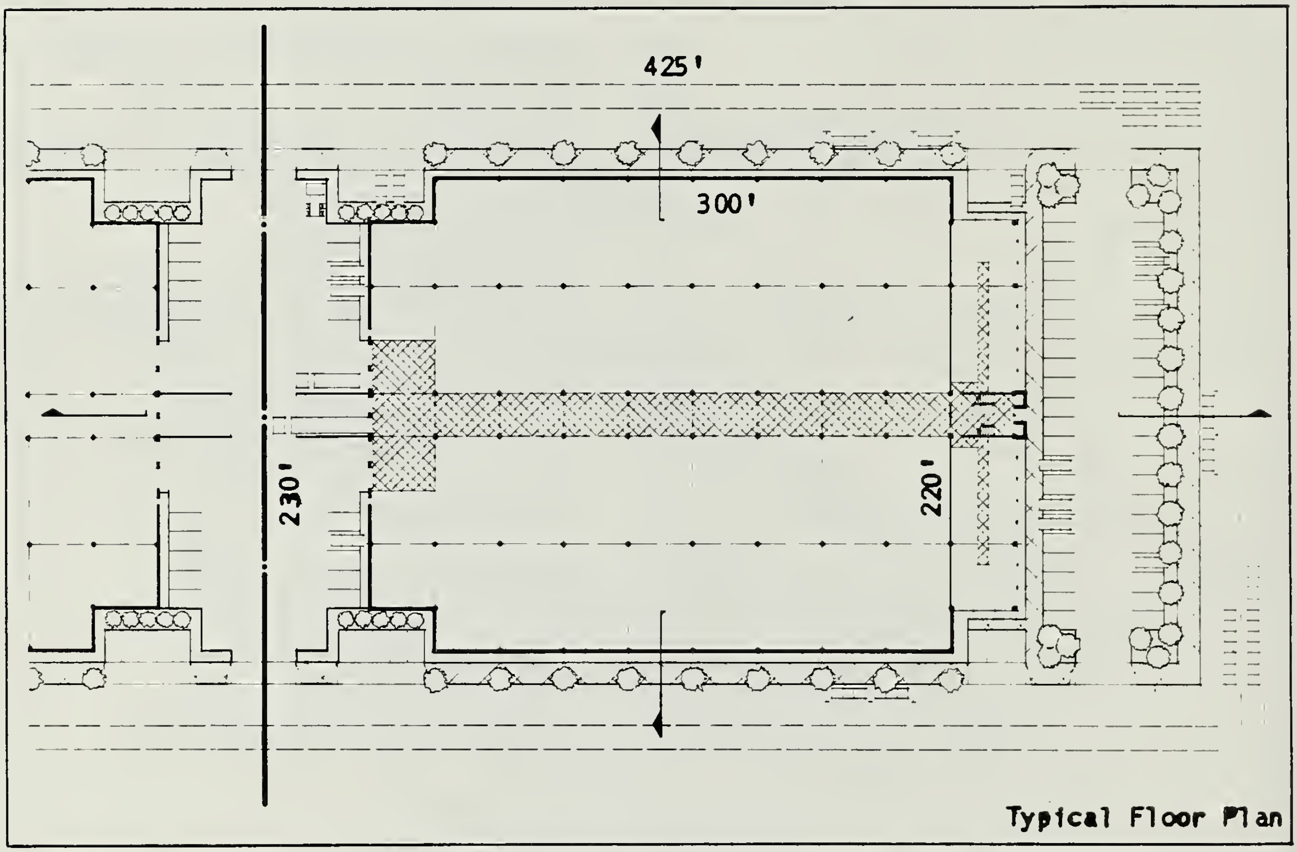
BUILDING FORM: Monolithic without atrium/courtyard
TOTAL LEASABLE FLOOR AREA: 69,000 square feet
TYPICAL FLOOR PLATE AREA: 63,600 square feet
TOTAL NUMBER OF FLOORS: 1 with mezzanine (8% of floor area)
BUILDING HEIGHT: 40'
CLEAR HEIGHT AT WORK AREA: 20' clear minimum
FLOOR-TO-FLOOR HEIGHT TYPICAL: 13' at office (in mezzanine)
LEASE DEPTHS: 110'

COMMENTARY: Requires alley at rear for loading/unloading.

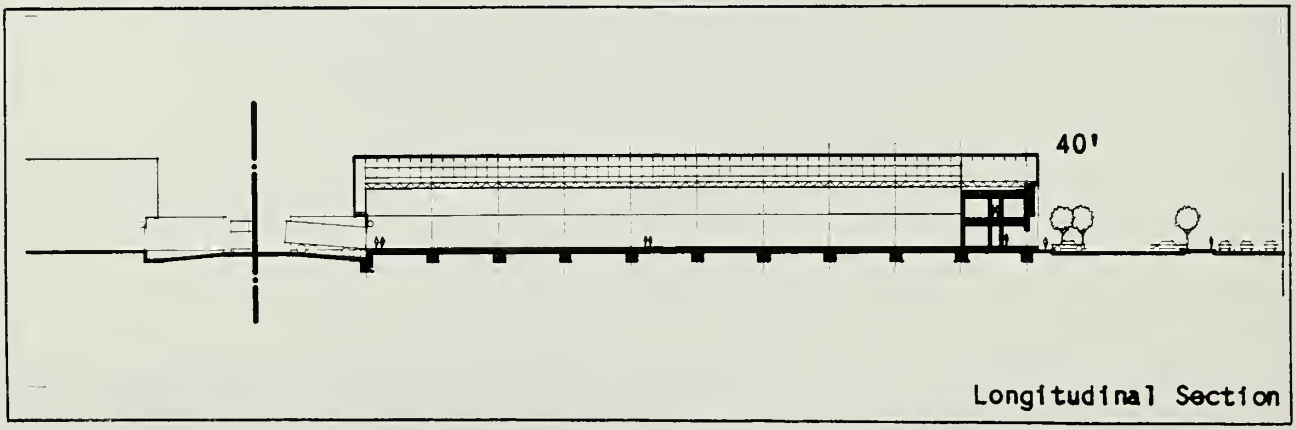


Light Industrial w/Office Mezzanine: View

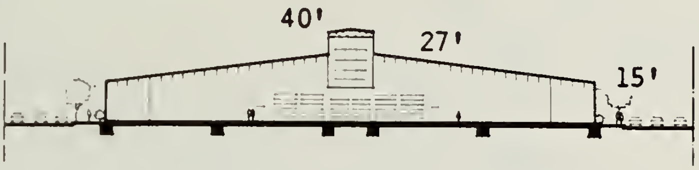
3.2 Light Industrial Uses



Typical Floor Plan



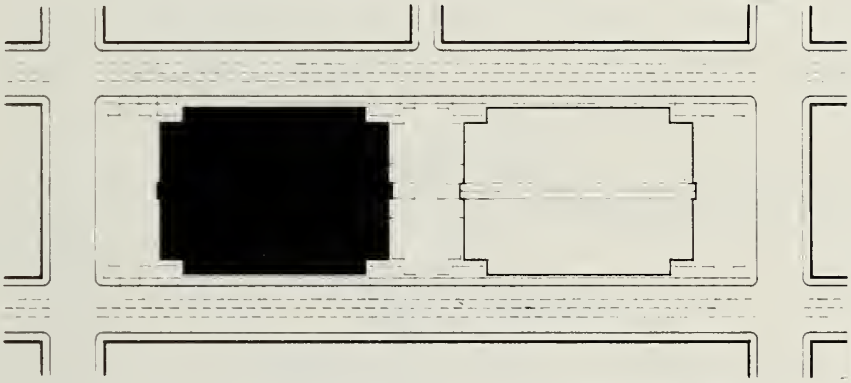
Longitudinal Section

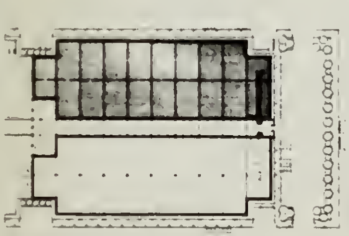


Transverse Section

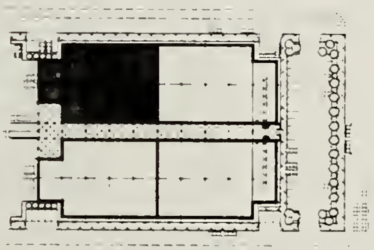
Site Plan

- * Shared parking
- * Shared loading facilities

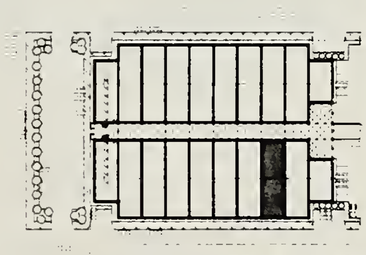




Subdivision Plan:
2 Tenants 34,500
Square Feet / User

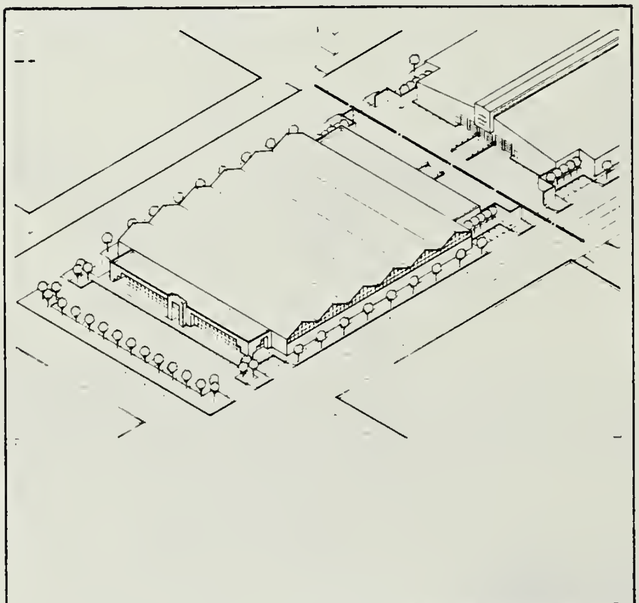


Subdivision Plan:
4 Tenants 17,250
Square Feet / User

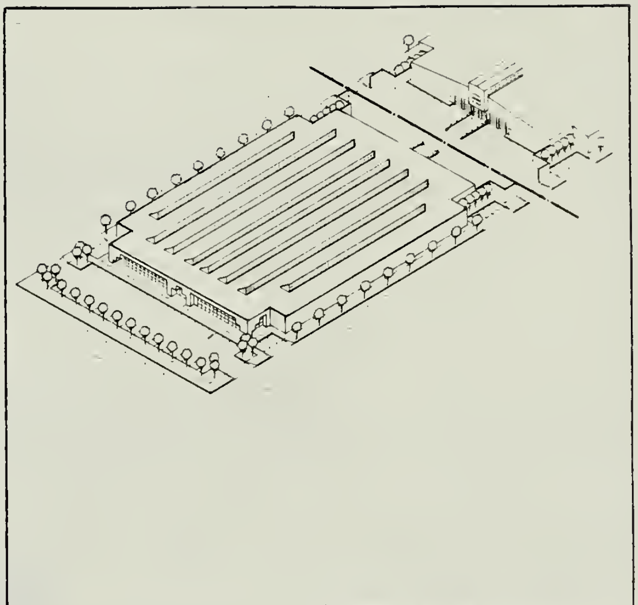


Subdivision Plan:
Multi Tenants 3,300
Square Feet / User

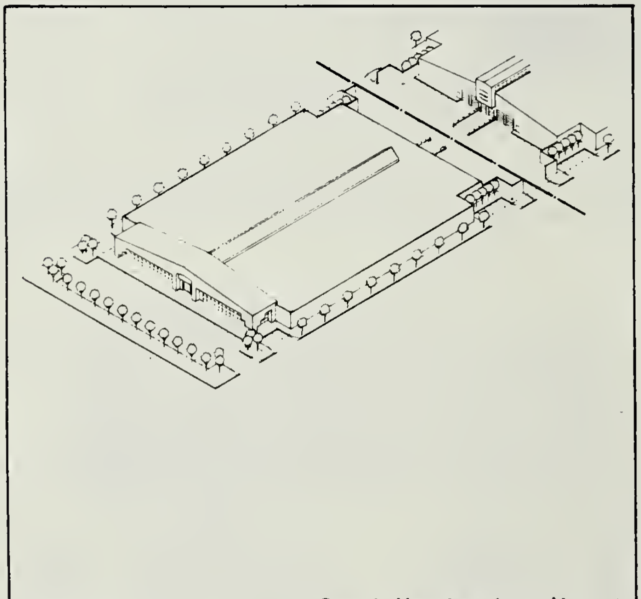
3.2 Light Industrial



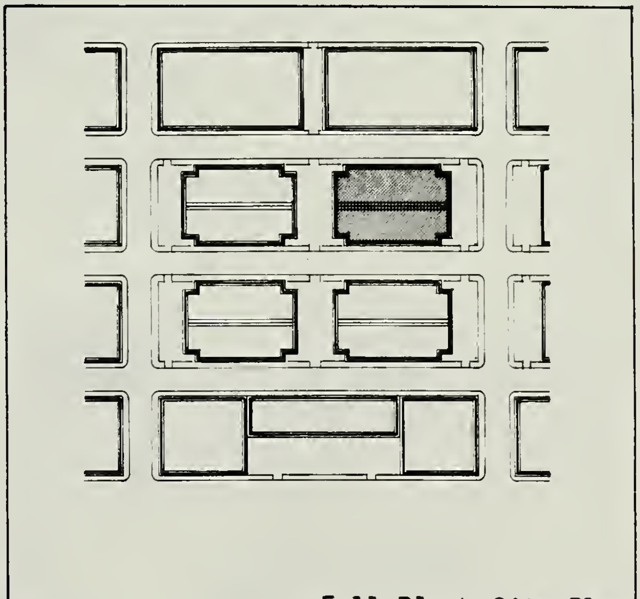
Roof Variation No. 1



Roof Variation No. 2



Roof Variation No. 3



Full Block Site Plan

4.0 Retail Uses

4.0 RETAIL USES

4.1 SMALL SCALE RETAIL USES:

Small scale retail uses in Mission Bay will be those that generally occur at the ground level along streets, below residential or office buildings. The purpose of small scale retail in Mission Bay will be to (1) serve the needs of workers for lunch and personal service, and to (2) serve the immediate, day-to-day needs of residents (corner grocery, laundry, etc.) Small scale retail demand may reach 300,000 square feet, and employ approximately 1,000 workers (Choices for Mission Bay Report, June 11, 1986).

The consensus to-date is that this retail will take the form of a typical San Francisco-type shopping street that serves workers, residents and perhaps people from throughout the City. In addition, there may be some special nodes of retail such as a waterfront cluster as part of a mixed use project on the north side of the channel or special clusters around civic or residential squares. There will also be individual "mom and pop" type stores scattered throughout the residential areas.

RETAIL USES

4.1 Small Scale

The types of retail uses and establishments that will ultimately exist in Mission Bay include:

EATING/DRINKING/ENTERTAINMENT

* full-service restaurants
* fast food and take-out restaurants
* bars and lounges
* dance halls, movie and dramatic theaters

BUSINESS/PROFESSIONAL/
PERSONAL SERVICES

* financial services
* professional offices
* medical services
* trade shops
* salons and barber shops
* health spas
* art, dance, music and exercise studios

OTHER RETAIL

* grocery stores
* pharmacies
* tobacco/newsstands
* laundries/laundromats
* variety merchandise
* clothing stores

4.1.1 SMALL SCALE RETAIL - EXISTING PROJECTS AND DISTRICTS

The following projects and districts were analyzed to provide guidance in developing retail performance requirements for Mission Bay:

Location	Project
San Francisco	Opera Plaza
San Francisco	Levi's Plaza
Glendale	Cabot, Cabot & Forbes
Glendale	550 North Brand
Glandale	505 North Brand
Glendale	Glendale Square
Glendale	Allstate Plaza

Location	District
San Francisco	Washington & Broderick Retail Cluster
San Francisco	Church & Duncan Retail Cluster
San Francisco	Chestnut Street
San Francisco	Inner Clement Street
San Francisco	Washington Square

RETAIL USES

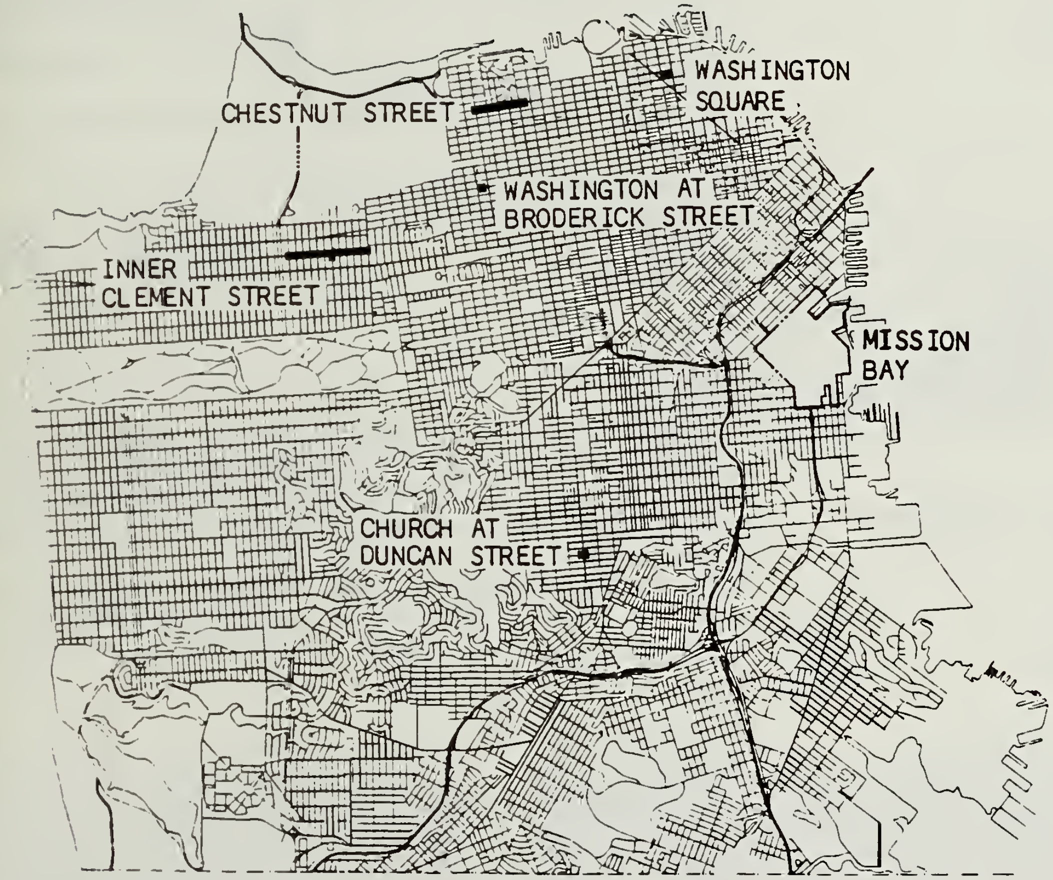
4.1 Small Scale

EXISTING RETAIL PROJECTS AND DISTRICTS SUMMARY

PROJECT	LOCATION	USES	GROSS SF-RETAIL	USE SIZES	FLOOR HEIGHT	LEASE DEPTHS	STORE FRONTAGES	PARKING
Opera Plaza	San Francisco	Housing over Office over Retail	45,000	2,300 - 11,600	20'-0"	32'-75'	45'-70'	Below Grade
Levi's Plaza	San Francisco	Office over Retail	35,000	675 - 7,500	15'-0"	35'-67'	15'-110'	On-Street
Cabot, Cabot & Forbes	Glendale	Office over Retail	31,000	500 - 10,500	16'-0"	24'-90'	20'-115'	Adjacent Structure
550 North Brand	Glendale	Office over Retail	5,600	300 - 3,200	18'-2"	20'-40'	15'-65'	Above and Below Grade
505 North Brand	Glendale	Office over Retail	29,000	2,300 - 11,600	20'-0"	32'-75'	45'-70'	Adjacent Structure
Glendale Square	Glendale	Office over Retail	78,000	300 - 5,600	21'-0"	14'-65'	50'-108'	Above and Below Grade
Allstate Plaza	Glendale	Office over Retail	12,000	900 - 5,000	22'-0"	28'-43'	28'-160'	Below Grade

DISTRICT	LOCATION	USES	GROSS SF-RETAIL	USE SIZES	FLOOR HEIGHT	LEASE DEPTHS	STORE FRONTAGES	PARKING
Washington /Broderick Streets	San Francisco	Retail & Housing	19,000	800 - 4,000	varies	30'-114'	20'-70'	On-Street
Church /Duncan Streets	San Francisco	Retail & Housing	9,000	1,000 - 3,500	varies	30'-60'	24'-75'	On-Street
Inner Clement Street	San Francisco	Retail, Housing & Institutional	475,000	200 - 20,000	varies	25'-125'	10'-200'	On & Off-Street
Chestnut Street	San Francisco	Retail & Housing	200,000	500 - 14,000	varies	30'-125'	10'-137'	On & Off-Street
Washington Square	San Francisco	Retail, Housing & Institutional	240,000	500 - 6,500	varies	15'-138'	14'-86'	On & Off-Street

4.1 Small Scale

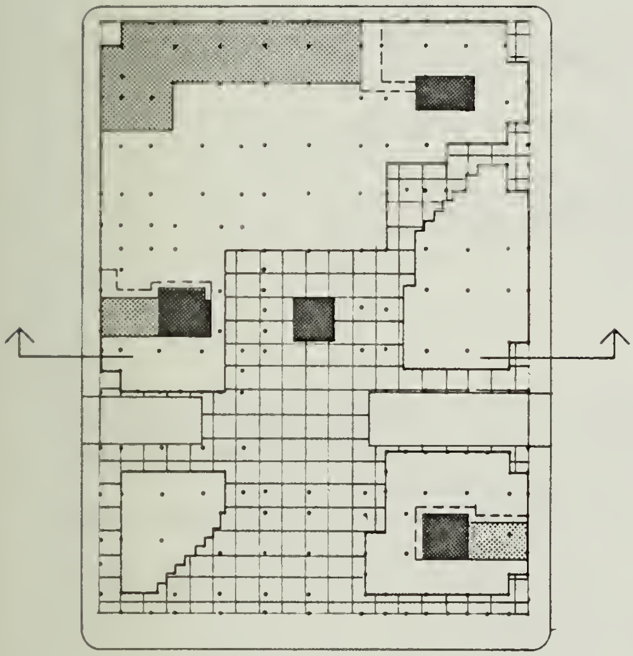


RETAIL USES

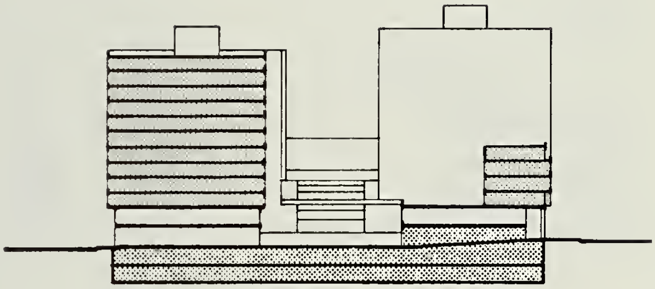
4.1 Small Scale

PROJECT:	**OPERA PLAZA** San Francisco, CA
DEVELOPER:	Pacific Coast Development Co., San Francisco, CA
ARCHITECT:	Jorge de Caseda
COMPLETED:	1981
OTHER USES:	Housing - 451 units in three 11-story towers and 4-level townhouse blocks. Office - 45,000 sf on one level immediately above retail.
TYPE:	Street frontage and courtyard.
TENANTS:	Suitable for small to medium-sized tenants.
GROSS SF-RETAIL:	45,000
Use Sizes:	200-8,000
RETAIL FLOORS:	1
FLOOR HEIGHT:	14'-0"
LEASE DEPTHS:	16'-90'
STORE FRONTAGES:	12'-100'
ENTRY:	2-story break in street facade and stepped storefronts define major entry to courtyard. Individual entries from street arcades and sidewalks.
HORIZONTAL CIRCULATION:	Continuous around project perimeter and through courtyard.
PARKING:	600 total spaces on 2 levels below grade, valet, tandem. 100 spaces for retail/public use.
SERVICE:	2 truck bays. On-street loading for most shops.
STRUCTURE:	Steel - 23' x 30' bays.
IMAGE:	
Form:	Unarticulated block on colonnaded podium, with corner towers.
Materials:	Off-white stucco, concrete and glass.
Windows:	Ribbon.
Quality:	Arcades along two streets, courtyard with fountain and landscaping are positive pedestrian influences.

OPERA PLAZA



Ground Level Plan



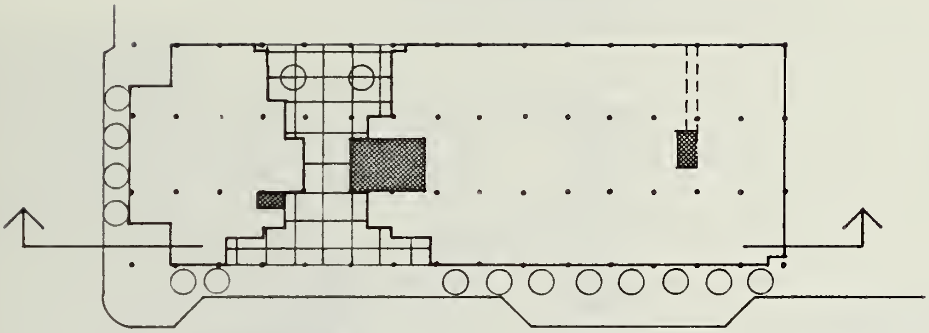
Section

RETAIL USES

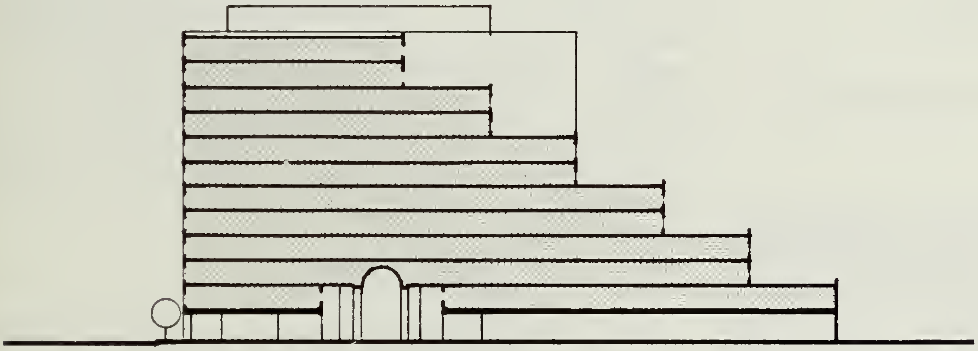
4.1 Small Scale

PROJECT:	**CABOT, CABOT AND FORBES** Glendale, CA
DEVELOPER:	Cabot, Cabot and Forbes, Los Angeles, CA
ARCHITECT:	Gensler and Associates, Architects
COMPLETED:	1983
OTHER USES:	Office - 296,000 sf on 11 floors above retail.
TYPE:	Street and courtyard frontage.
TENANTS:	Suitable for small and large tenants.
GROSS SF-RETAIL:	31,000
Use Sizes:	500 - 10,500
RETAIL FLOORS:	1
FLOOR HEIGHT:	16'-0"
LEASE DEPTHS:	24' - 90'
STORE FRONTAGES:	20' - 115'
ENTRY:	2-story archway and stepped facade define major entry. Individual entries from street and courtyard.
HORIZONTAL CIRCULATION:	Continuous around project perimeter and through passage between street and courtyard.
PARKING:	927 spaces on 7 levels in adjacent, above-ground structure. For use by office and retail. 6 short-term on-street spaces.
SERVICE:	Service alley between office building and parking structure.
STRUCTURE:	Steel - 22'-6" x 37'-8" bays.
IMAGE:	
Form:	Unarticulated block with stepped terraces above over-scaled columns at retail base.
Materials:	Blue-grey concrete with blue-grey glass.
Windows:	Ribbon.
Quality:	Entry archway, passage and rear courtyard are pleasant pedestrian ammenities. Street trees compensate in part for lack of street-level arcade.

CABOT, CABOT & FORBES



Ground Level Plan



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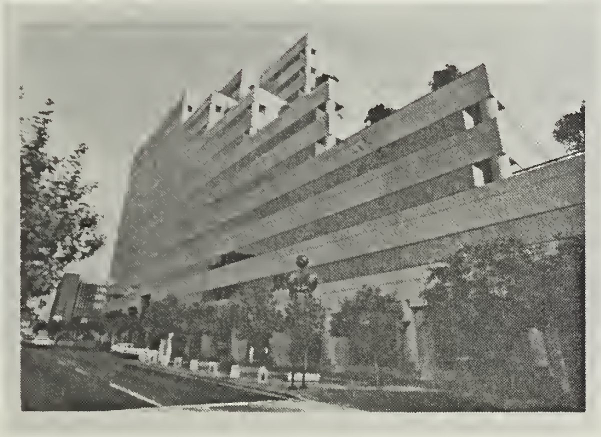
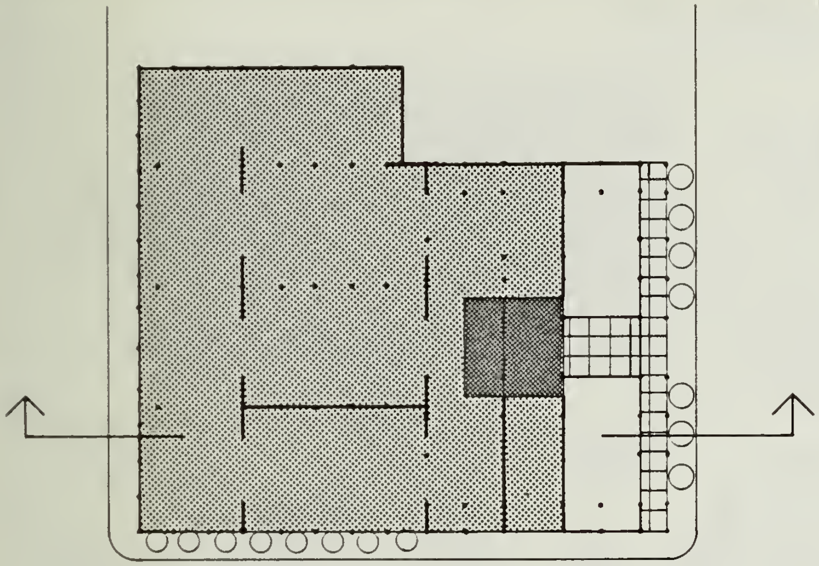


RETAIL USES

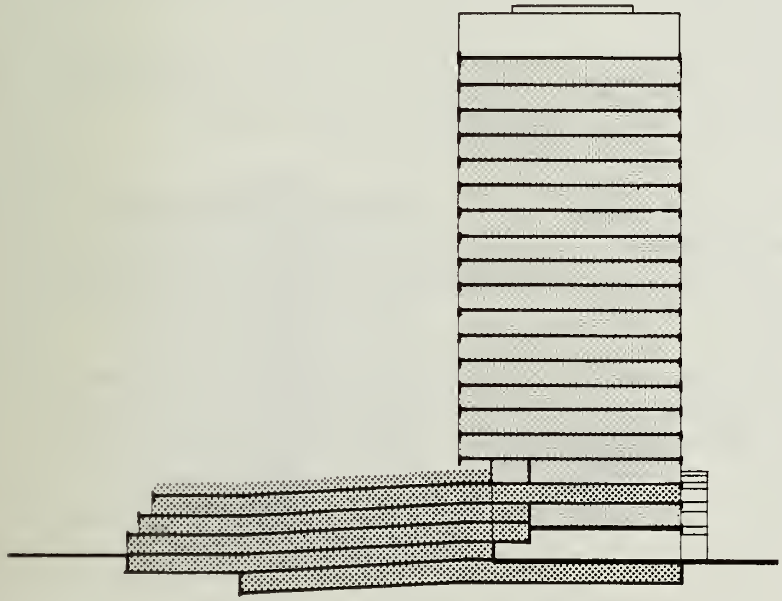
4.1 Small Scale

PROJECT:	**550 NORTH BRAND** Glendale, CA
DEVELOPER:	Smith-Hricik Development Co., Century City, CA
ARCHITECT:	Helmuth, Obata and Kassabaum
COMPLETED:	1987
OTHER USES:	Office - 304,000 sf on 17 floors above retail and parking.
TYPE:	Street frontage.
TENANTS:	Suitable for small tenants.
GROSS SF-RETAIL:	5,600
Use Sizes:	300 - 3200
RETAIL FLOORS:	1
FLOOR HEIGHT:	18'-2"
LEASE DEPTHS:	20' - 40'
STORE FRONTAGES:	15' - 65'
ENTRY:	Notch in arcade and podium above define major entry. Individual entries from street.
HORIZONTAL CIRCULATION:	Linear along street arcade and from entry lobby.
PARKING:	859 spaces on 6 levels (1 below grade) interlocked with retail and office. For use by office and retail.
SERVICE:	1 truck bay.
STRUCTURE:	Steel - 30' x 40' bays.
IMAGE:	
Form:	Articulated tower on parking/office podium with 2-story street arcade.
Materials:	Off-white concrete with pink granite and grey tinted glass.
Windows:	Ribbon.
Quality:	Arcade along major street and street trees encourage pedestrian traffic. Parking is well integrated into upper levels without impacting street.

550 NORTH BRAND



Ground Level Plan



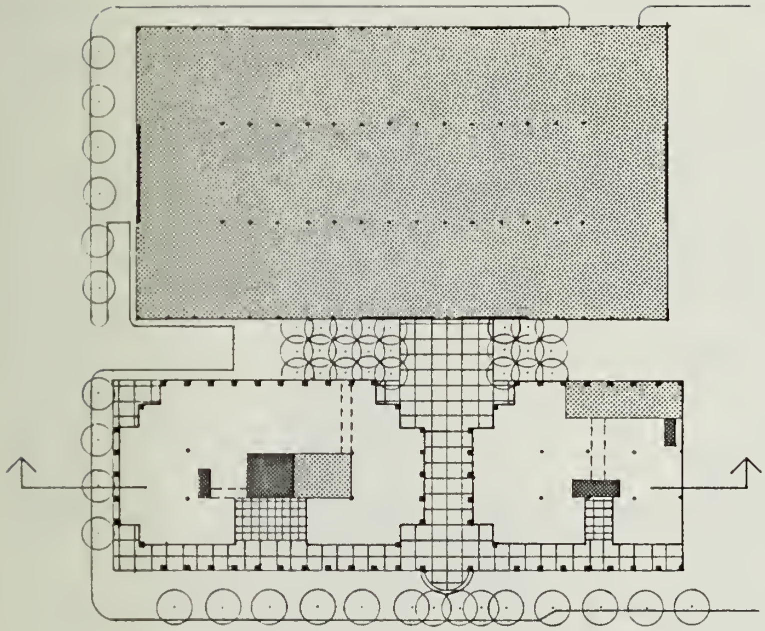
Section

RETAIL USES

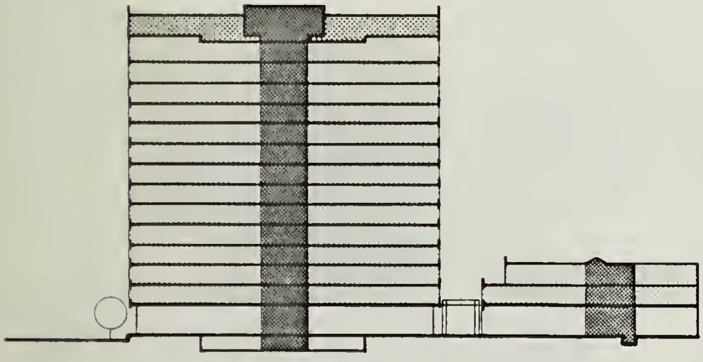
4.1 Small Scale

PROJECT:	**505 NORTH BRAND** Glendale, CA
DEVELOPER:	Reliance Development Co., New York, NY
ARCHITECT:	Skidmore, Owings and Merrill
COMPLETED:	1986
OTHER USES:	Office - 350,000 sf total. High-rise: 312,500 sf on 14 floors above retail. Low-rise: 37,500 sf on 2 floors above retail.
TYPE:	Street frontage.
TENANTS:	Suitable for small and medium-sized tenants.
GROSS SF-RETAIL:	29,000
Use Sizes:	2,300 - 11,600
RETAIL FLOORS:	1
FLOOR HEIGHT:	20'-0"
LEASE DEPTHS:	32' - 75'
STORE FRONTAGES:	45' - 70'
ENTRY:	Arbor between high-rise and low-rise defines major retail entry. Individual entries from street and court. Office entries from street arcades are poorly defined by shallow recesses in storefronts.
HORIZONTAL CIRCULATION:	Linear along street arcade and between buildings to rear court.
PARKING:	1,189 spaces on 6 levels (1 below- grade) in adjacent structure. For use by office and retail.
SERVICE:	1 truck bay and 1 off-street loading area.
STRUCTURE:	Steel - 30' x 30' bays.
IMAGE:	
Form:	Articulated tower and low block with 1-story street arcades.
Materials:	Pink concrete and red granite with bronze tinted glass.
Windows:	Ribbon.
Quality:	Arcade along major street is raised above sidewalk level, discouraging pedestrian traffic. Trellised arbor and rear landscaped court are inviting features.

505 NORTH BRAND



Ground Level Plan



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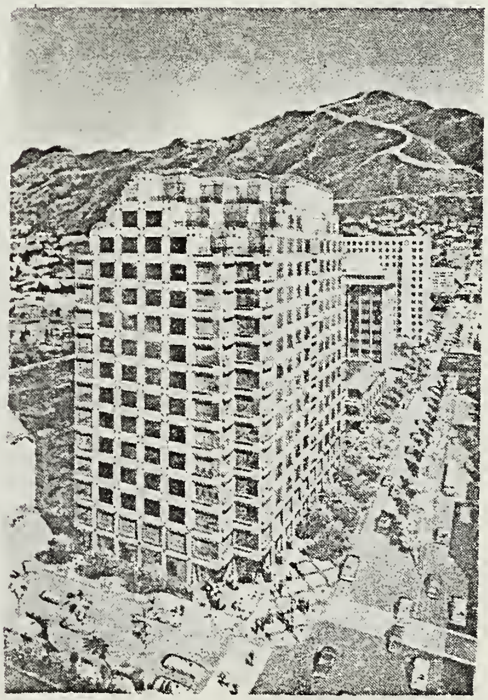
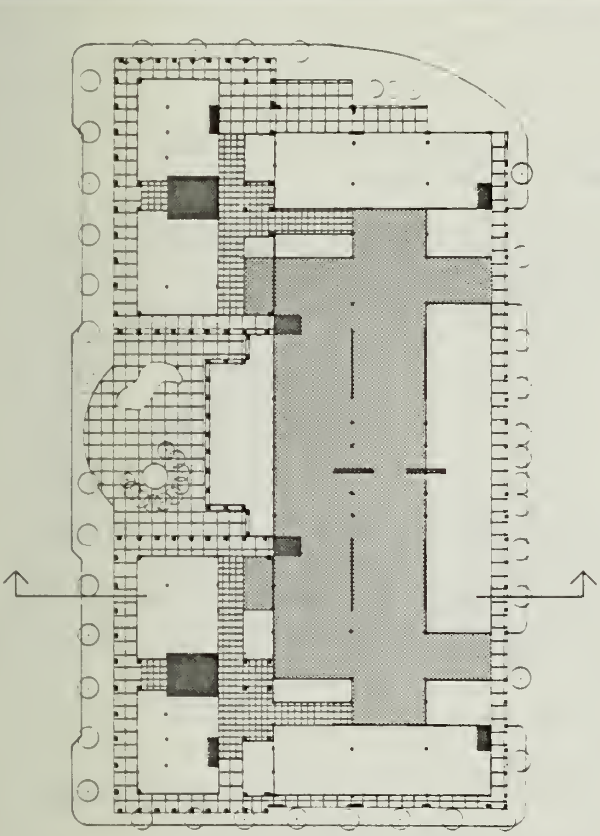


RETAIL USES

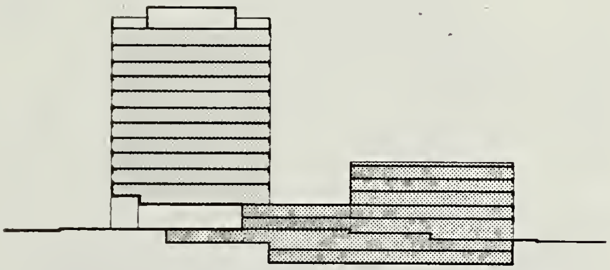
4.1 Small Scale

PROJECT:	**GLENDALE SQUARE** Glendale, CA
DEVELOPER:	American Trading Real Estate Co., Inc., Baltimore, Maryland
ARCHITECT:	Langdon, Wilson, Mumper, Architects
COMPLETED:	Undetermined
OTHER USES:	Office - 616,000 sf total. 308,000 sf on 11 floors above retail, in each of two towers.
TYPE:	Street frontage.
TENANTS:	Suitable for small and medium-sized tenants.
GROSS SF-RETAIL:	78,000
Use Sizes:	300 - 5,600
RETAIL FLOORS:	1
FLOOR HEIGHT:	21'-0"
LEASE DEPTHS:	14' - 65'
STORE FRONTAGES:	50' - 108'
ENTRY:	Landscaped plaza between office towers defines major entry. Individual entries from street.
HORIZONTAL CIRCULATION:	Continuous around project perimeter.
PARKING:	2,007 spaces on 5 levels (1 below grade). For use by office and retail.
SERVICE:	2 truck bays.
STRUCTURE:	Steel - 20' x 40' bays.
IMAGE:	
Form:	Unarticulated towers and low parking block with 1 story street arcades.
Materials:	Red brick and sandstone with bronze tinted glass.
Windows:	Ribbon and punched.
Quality:	Arcades and landscaped plaza encourage pedestrian activity. Entire block is lined with retail, adding life to side streets and diminishing impact of parking structure.

GLENDALE SQUARE



Ground Level Plan



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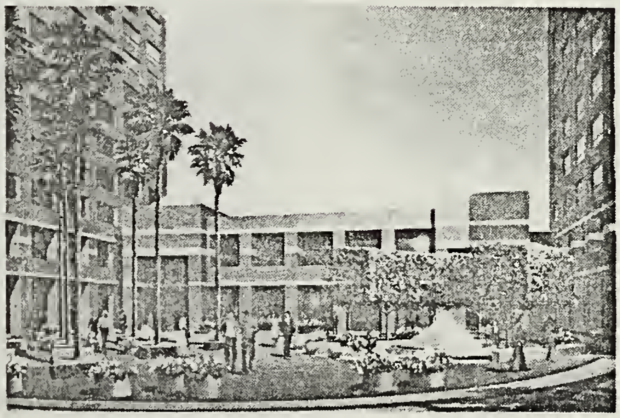
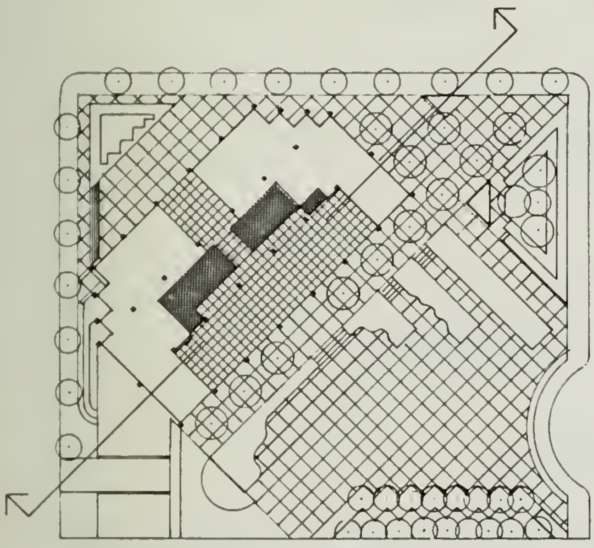


RETAIL USES

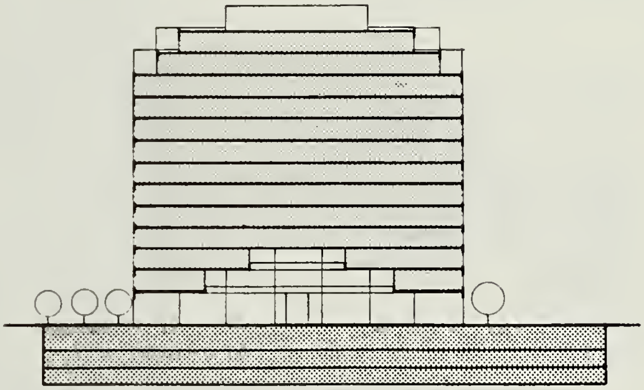
4.1 Small Scale

PROJECT:	**ALLSTATE PLAZA** Glendale, CA
DEVELOPER:	Allstate Insurance Co., Northbrook, Illinois
ARCHITECT:	Neptune and Thomas, Architects
COMPLETED:	1986
OTHER USES:	Office - 273,000 sf on 12 floors above retail.
TYPE:	Street and plaza frontage.
TENANTS:	Suitable for small and medium-sized tenants.
GROSS SF-RETAIL:	12,000
Use Sizes:	900 - 5,000
RETAIL FLOORS:	1
FLOOR HEIGHT:	22'-0"
LEASE DEPTHS:	28' - 43'
STORE FRONTAGES:	28' - 160'
ENTRY:	3-story lobby space and expressed columns define major entry. Individual entries from plaza.
HORIZONTAL CIRCULATION:	Continuous around perimeter and through lobby.
PARKING:	1,026 spaces on 3 levels below grade. For use by office and retail.
SERVICE:	1 truck bay.
STRUCTURE:	Steel - 30'-0" x 37'-6" bays.
IMAGE:	
Form:	Articulated tower with recessed lobby and ground level glazing.
Materials:	Grey granite and grey tinted glass.
Windows:	Ribbon.
Quality:	Orientation of building relative to major boulevard discourages pedestrian activity. Plaza space oriented internally to existing corporate complex. Below-grade parking, though not utilized to its full advantage, greatly increases the amount of usable ground-level open space.

ALLSTATE PLAZA



Ground Level Plan



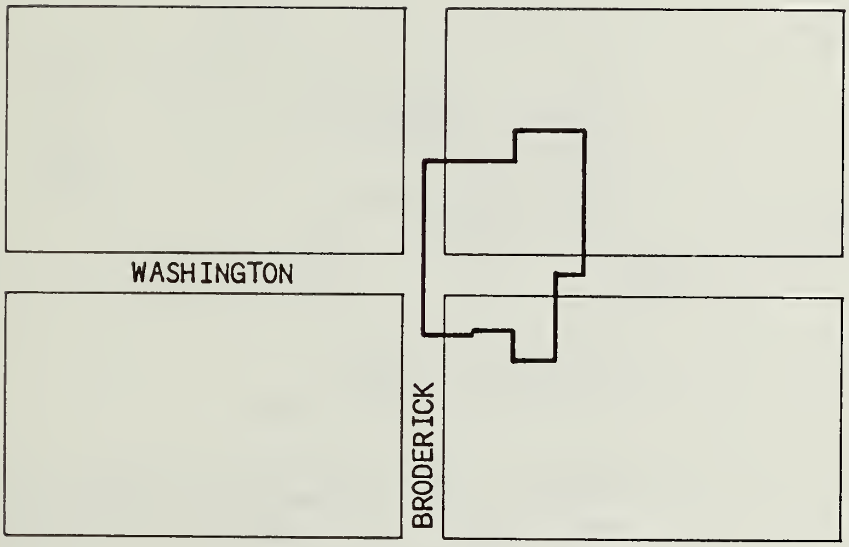
Section

RETAIL USES

4.1 Small Scale

DISTRICT:	**WASHINGTON AT BRODERICK STREETS** San Francisco, CA	
OTHER USES:	Housing - 13 units on 2nd and 3rd stories.	
TYPE:	Neighborhood Retail Cluster.	
TOTAL RETAIL USES:	11	
RETAIL USE MIX:	Eating/Drinking/Entertainment	- 0%
	Business/Professional/ Personal Services	- 55%
	Other Retail	- 45%
GROSS SF-RETAIL:	19,000 (approximate)	
Use Sizes:	800 - 4,000	
RETAIL FLOORS:	1 - 2	
LEASE DEPTHS:	30' - 114'	
STORE FRONTAGES:	20' - 70'	
PARKING:	10 on-street spaces.	
SERVICE:	On-street loading zone.	
QUALITY:	Small, neighborhood-serving uses (grocery, laundry, beauty shop). Quiet area, off of transit lines. Awnings define entries to most shops. Mature street trees characteristic of neighborhood.	

WASHINGTON AT BRODERICK STREETS

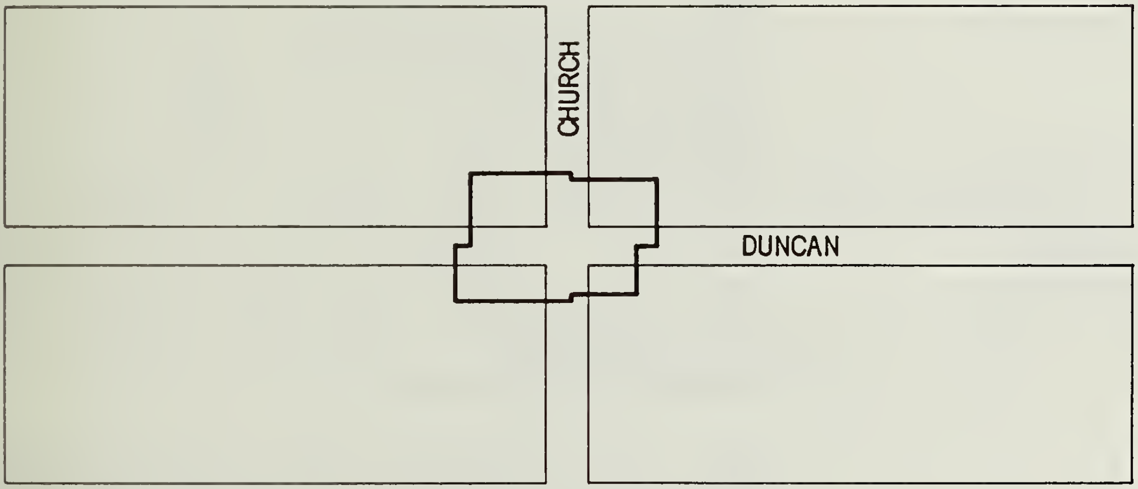


RETAIL USES

4.1 Small Scale

DISTRICT:	**CHURCH AT DUNCAN STREETS** San Francisco, CA
OTHER USES:	Housing - 11 units on 2nd and 3rd stories.
TYPE:	Neighborhood Retail Cluster.
TOTAL RETAIL USES:	6
RETAIL USE MIX:	Eating/Drinking/Entertainment - 33% Business/Professional/ Personal Services - 0% Other Retail - 67%
GROSS SF-RETAIL:	9,000 (approximate)
Use Sizes:	1,000 - 3,500
RETAIL FLOORS:	1
LEASE DEPTHS:	30' - 60'
STORE FRONTAGES:	24' - 75'
PARKING:	16 on-street spaces.
SERVICE:	On-street loading zones.
QUALITY:	Good mix of neighborhood-serving uses (grocery, laundry). All corners of intersection developed with retail on ground level, housing above. Located on main trolley line. No street trees.

CHURCH AT DUNCAN STREET

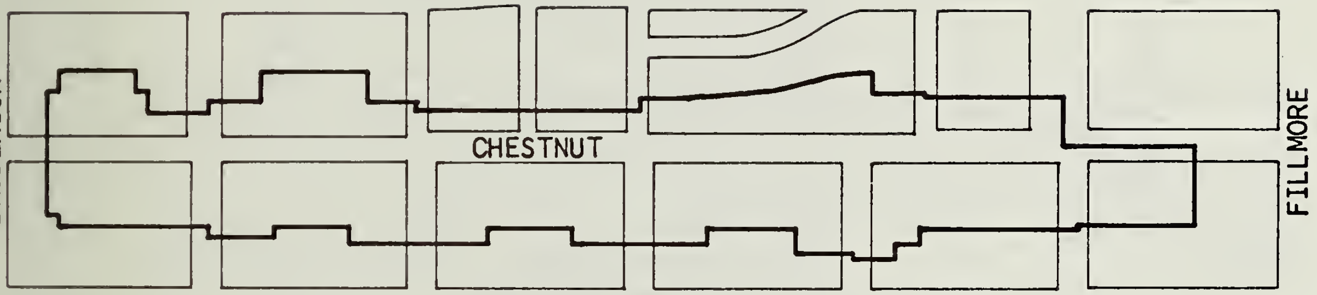


RETAIL USES

4.1 Small Scale

DISTRICT:	**CHESTNUT STREET** (Fillmore to Broderick) San Francisco, CA
OTHER USES:	Housing - 323 units on 2nd through 4th stories.
TYPE:	Neighborhood Retail Street.
TOTAL RETAIL USES:	203
RETAIL USE MIX:	Eating/Drinking/Entertainment - 27% Business/Professional/ Personal Services - 23% Other Retail - 50%
GROSS SF-RETAIL:	200,000 (approximate)
Use Sizes:	500 - 14,000
RETAIL FLOORS:	1 - 3
LEASE DEPTHS:	30' - 125'
STORE FRONTAGES:	10' - 137'
PARKING:	150 on-street spaces. 115 spaces in city-owned parking structure.
SERVICE:	On-street loading zones.
QUALITY:	Excellent diversity of retail uses, including large number of neighborhood-serving businesses. Awnings colorful and varied. Street trees add to vitality of district. Great amount of pedestrian activity.

CHESTNUT STREET

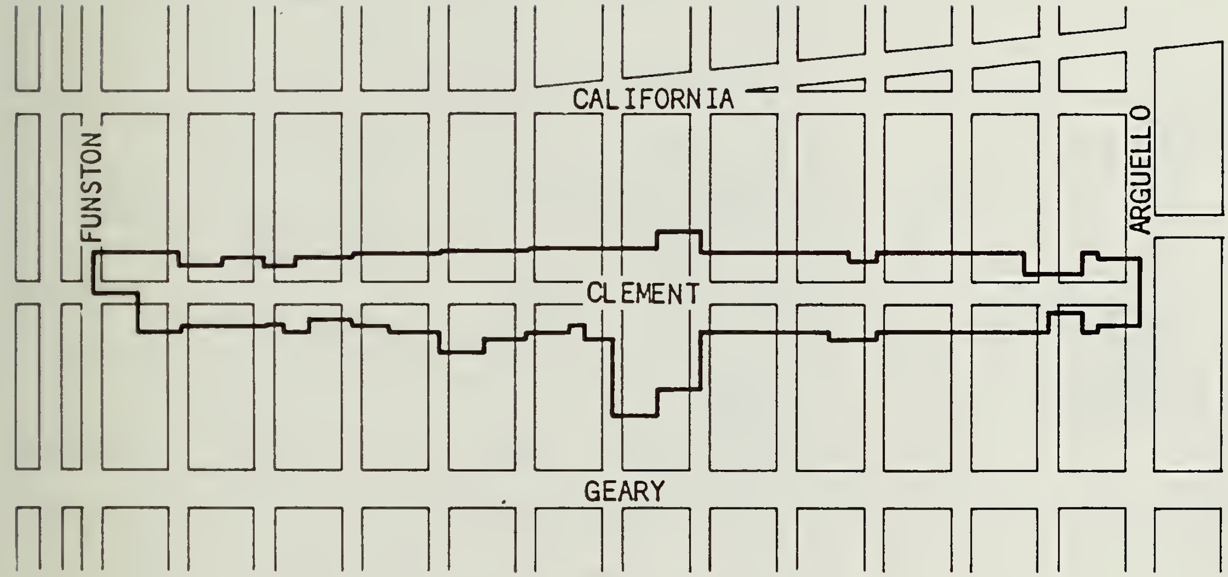


RETAIL USES

4.1 Small Scale

DISTRICT:	**INNER CLEMENT STREET** (Arguello to Funston) San Francisco, CA
OTHER USES:	Housing - 238 units on 1st through 4th stories. Institutional - 3 uses (church, assembly).
TYPE:	Neighborhood Retail Street.
TOTAL RETAIL USES:	8,435
RETAIL USE MIX:	Eating/Drinking/Entertainment - 26% Business/Professional/ Personal Services - 33% Other Retail - 41%
GROSS SF-RETAIL:	475,000 (approximate)
Use Sizes:	200 - 20,000
RETAIL FLOORS:	1 - 2
LEASE DEPTHS:	25' - 125'
STORE FRONTAGES:	10' - 200'
PARKING:	528 on-street spaces. 68 off-street spaces.
SERVICE:	On-street loading zones.
QUALITY:	Active pedestrian traffic due to dense retail street frontage. Good mix of retail uses. Many neighborhood serving shops and markets, though eating and drinking establishments tend to predominate. Few street trees. Parking a constant problem.

INNER CLEMENT STREET

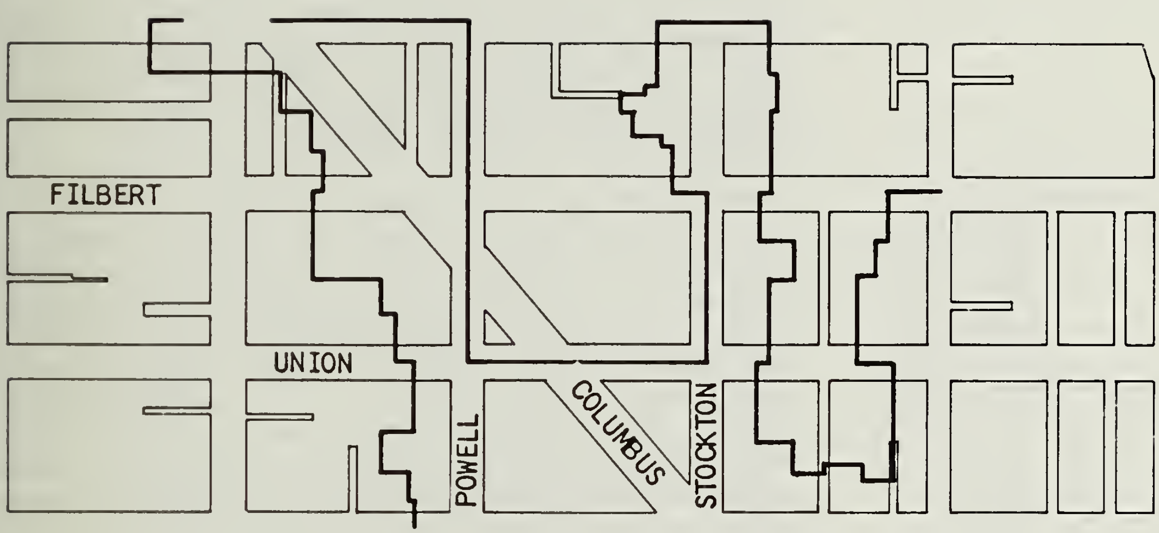


RETAIL USES

4.1 Small Scale

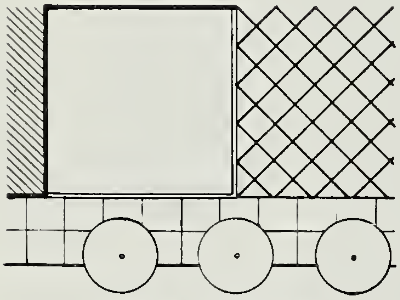
DISTRICT:	**WASHINGTON SQUARE** San Francisco, CA
OTHER USES:	Housing - 336 units on 1st through 4th stories. Institutional - 7 uses (assembly, child care, etc.).
TYPE:	Neighborhood Retail Square.
TOTAL RETAIL USES:	171
RETAIL USE MIX:	Eating/Drinking/Entertainment - 33% Business/Professional/ Personal Services - 37% Other Retail - 30%
GROSS SF-RETAIL:	240,000 (approximate)
Use Sizes:	500 - 6,500
RETAIL FLOORS:	1 - 3
LEASE DEPTHS:	15' - 138'
STORE FRONTAGES:	14' - 86'
PARKING:	200 on-street spaces. 110 spaces in parking garage.
SERVICE:	On-street loading zones.
QUALITY:	Pleasant pedestrian environment created by park-like square. More restaurants and offices than neighborhood-serving uses. Very active pedestrian streets. Retail extends around three sides of square (with church on fourth side).

WASHINGTON SQUARE

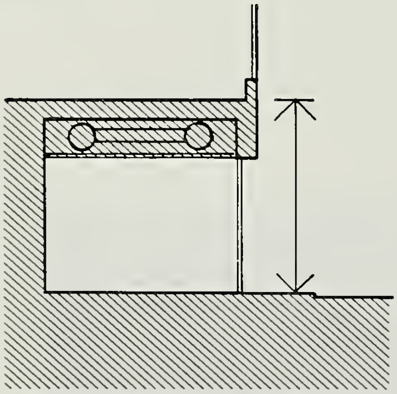


4.1.2 SMALL SCALE RETAIL PERFORMANCE REQUIREMENTS

LEASING DEPTH DIMENSIONS: Leasing depth is the distance from the store front to the rear of the retail space. To accommodate typical retail uses, the leasing depth should range between 25' and 100', with the average use requiring about 60'. This is in keeping with the current trend toward eliminating on-site storage space, all merchandise delivered being immediately transferred to the display floor.


Store Frontage

STORE FRONTAGE DIMENSIONS: Store frontage is the total width of a particular retail space, which "fronts" onto open space immediately accessible to pedestrians. The open space may be public, as in the case of a street sidewalk or plaza, or located within the confines of a larger project, such as an office courtyard or passageway. To accommodate typical retail uses, store frontage should range between 15' and 100', with the average use requiring about 25'. In housing districts, the 25' module is in keeping with the traditional San Francisco lot width.


Floor-to-Floor Height

FLOOR-TO-FLOOR HEIGHT: High ceilings are desirable in retail spaces, due to display requirements, and the semi-public nature of such functions. This factor, combined with heavy demands for mechanical ventilation and lighting, results in an optimum floor-to-floor height of about 15' (18' where adjacent to 2 levels of parking structure). Retail spaces will primarily be located on the ground level. When integrated with office space, retail will generally occur adjacent to an office lobby or passage. In housing districts, housing will begin on the floor immediately above retail. Thus, the large floor-to-floor height can be integrated into both office and housing projects.

USE SIZES: The actual square footage required by a particular retail use will depend upon many factors. Among these are type and amount of merchandise to be displayed, circulation between displays, seating requirements, and storage or preparation demands.

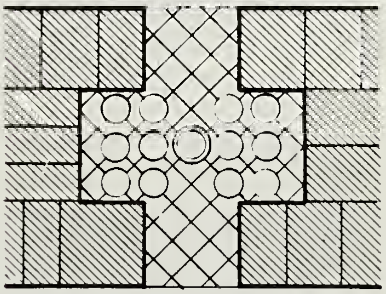
Typical retail use sizes range from 300 sf (example: news/tobacco stands) to 15,000 sf (example: medium-size food markets), with the average use size totalling about 2,500 square feet.

USE MIX: Though no ideal mix of retail uses can be prescribed, existing retail projects, and in particular, existing San Francisco neighborhood retail districts have demonstrated that the most successful cases incorporate a diverse balance of uses. These can be roughly described in terms of percentages of major types as follows:

Eating/Drinking/Entertainment	25%
Business/Professional/Personal Services	25%
Other Retail (grocery, laundry, clothing, misc.)	50%
Institutional	5%

The use mix will vary from one category of retail project or district to the next. For example, retail below office space will likely include numerous eating and professional service uses, few if any grocery stores, and no laundries. Neighborhood retail clusters will likely include corner grocery stores, laundries, limited personal services, and fewer eating or drinking establishments.

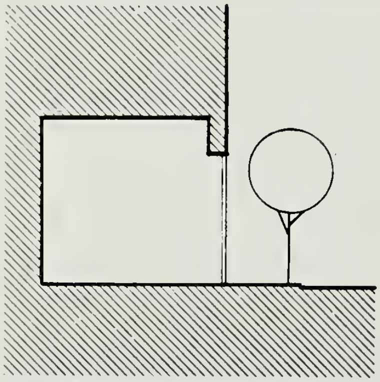
RETAIL AT MID-BLOCK: Office and mixed use projects may be enriched by incorporating mid-block pedestrian ways which extend through one or several blocks. Special considerations for retail in such locations include identification of retail from adjoining streets, servicing mid-block retail, and concentration of uses which will remain viable without the exposure to vehicular traffic. Additional incentives to draw pedestrians could include outdoor eating/drinking areas, concentrations of landscaping and water elements, and uses such as theaters and full-service restaurants which will function during nighttime hours.



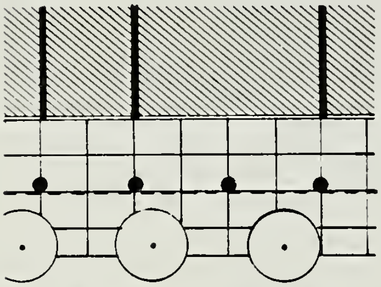
Retail at Mid-Block

RETAIL USES

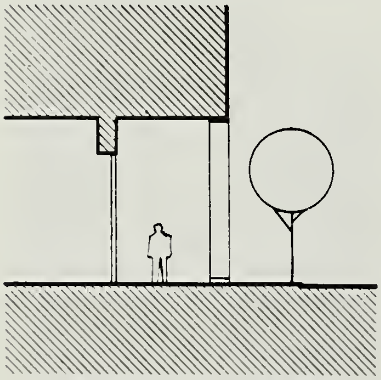
4.1 Small Scale



Retail at Sidewalk



Retail Colonnades Plan



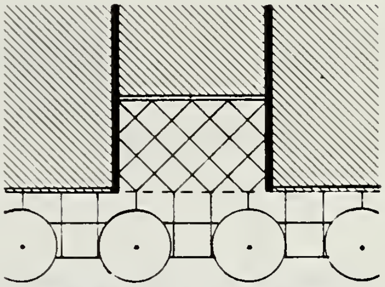
Retail Colonnades

STREET EDGE CONDITIONS: Street edge conditions encompass a multitude of factors affecting the character of the retail district, the viability of the individual shops, and the compatibility of retail with other uses in the same building or general area. Success of the district depends upon sensitive integration of these various conditions, while keeping to the historic patterns which exist throughout San Francisco. Street edge conditions include: Retail at sidewalks, retail colonnades, recesses for outdoor activity, walk-up facilities, awnings, canopies, marquees, signage, and street trees.

RETAIL AT SIDEWALKS: Locating the retail storefronts directly on the sidewalk is desirable, and indeed preferable in most situations. This prevents the street edge from becoming broken up and ill-defined, as if retail were allowed to meander in and out. This condition should be maintained at all secondary streets where retail is located below office and mixed use projects. Likewise, in neighborhood retail clusters and shopping streets or squares, retail should be held to the sidewalk. Only along major streets or pedestrian ways in office or mixed use projects should retail be allowed to recess into colonnades, or interior locations.

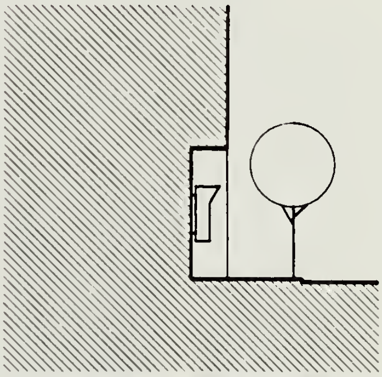
RETAIL COLONNADES: Colonnades are protected walkways directly open to the sidewalk or street and carved out of the overall building form. In a retail colonnade, the storefronts are uniformly recessed 10' to 20' from the sidewalk. Colonnades are appropriate along major streets or pedestrian ways where incorporated into office or mixed use projects. They provide a base for the building above and protect pedestrians from the elements. Colonnades are not appropriate, however, in neighborhood retail districts such as corner clusters and streets or squares. Here they are out of character with the traditional San Francisco housing/retail types, and would tend to counteract the strong street edge definition necessary with low- scale buildings.

RECESS FOR OUTDOOR ACTIVITY: Certain retail functions such as eating and drinking establishments can make use of outdoor, streetfront areas for sitting and other activities. Cafes are a prime example of such uses, incorporating both indoor and outdoor tables. Provisions should be made for recessed areas in the streetfront to allow these sorts of activities to occur. Particularly along retail streets or squares, recesses for such activities should be allowed, provided they do not severely impact the street edge (a maximum of one or two such conditions per block). Railings, low walls, and other devices can be used to maintain the continuity of the sidewalk, and separate pedestrian traffic from the individual retail uses.



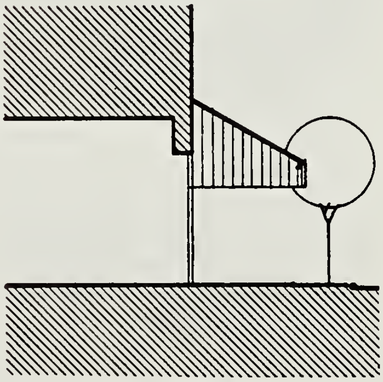
Recess for Outdoor Activity

WALK-UP FACILITIES: Certain self-service functions such as automatic bank teller machines, entertainment ticketing machines, and computerized information/advertising centers should be allowed in all projects and districts, provided they do not negatively impact the level of pedestrian activity and traffic flow. Walk-up facilities in high activity areas, such as along neighborhood retail streets, should be recessed at least 3 feet from the sidewalk edge.



Walk-Up Facilities

AWNINGS: Awnings are light cloth and metal-framed structures supported entirely by building walls and extending across both the display windows and doorways of retail spaces. They serve to distinguish individual shops, provide some shelter from sun and rain, and may incorporate signage advertising the name of the business. Awnings should be placed as low on the building front as practical, thus helping to transition from exterior to interior space, though not less than 7 feet. Likewise awnings may project up to 4 feet from the building face. Awnings are acceptable, indeed encouraged, in all retail projects and districts.

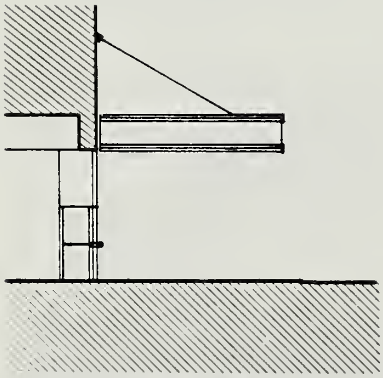


Awnings

SIGNAGE: Signage encompasses all forms of building identification, individual business signage, and product advertising. In general, signage should be compatible with the scale and character of the project or district, and should not interfere with other uses such as housing above.

Building identification signs incorporate the address and general name of the building only. These should be mounted flush against the wall, and be limited to one per building. Building identification signs should not be allowed in office and mixed use projects, as they tend to be incompatible with the aesthetics of the overall building and the character of the district.

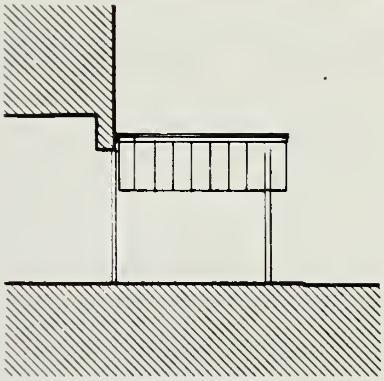
Business signs include all specific store identification signs, and product advertising signage. Included in this category are window, wall, projecting, and awning signs. In general, all types of business signage are acceptable in neighborhood retail clusters, streets and squares. In office and mixed use projects, only window and awnings signage should be allowed, with wall signs acceptable when carefully integrated into the overall building design.



Marquees

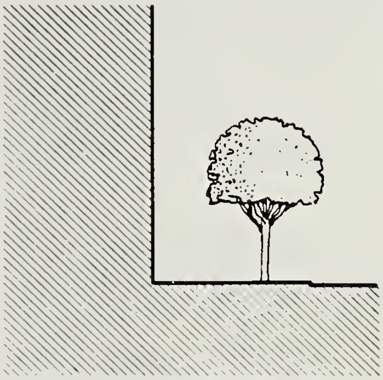
MARQUEES: Marquees are permanent, roof-like structures supported entirely by building walls and often lighted. They may occur only at entries, or extend across larger portions of retail spaces. Marquees serve primarily as signage and identifying elements, though they also provide some protection from sun and rain. Marquees should be located 12 to 16 feet above the sidewalk, be not more than 3 feet high, and extend no more than two-thirds the distance from the building face to the street curb. Marquees are appropriate on neighborhood retail streets and squares, and to a limited extent in office and mixed use projects.

CANOPIES: Canopies are light cloth, plastic, or metal structures supported both by building walls and light columns. Unlike awnings, they occur only at doorways. They serve to identify the entrances to individual shops or groups of stores, provide some protection from sun and rain, and may incorporate signage advertising the name of the business. Canopies will normally be placed immediately above the building doorway, though not lower than 7 feet. They should not be more than 2 feet high, nor should they project to closer than 2 feet to the street curb. Due to the tendency for canopies to compete with principal entrances in larger buildings, they should not be allowed in office and mixed use projects. Canopies would also be out of keeping with the primarily residential character of neighborhood retail corner clusters. Therefore, canopies should be allowed only along neighborhood retail streets or squares.



Canopies

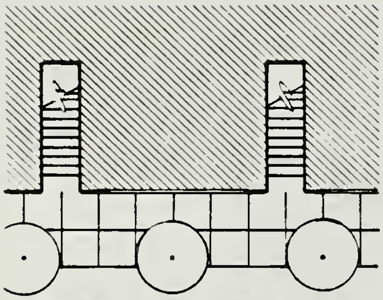
STREET TREES: Street trees enhance the vitality of the pedestrian street, provide some protection from sun and wind, and create a buffer between pedestrians and automobiles. Trees should be required on all pedestrian streets, in all projects and districts, both in office and neighborhood areas. An acceptable spacing for street trees is approximately 20 feet on center.



Street Trees

PARKING: Parking must be provided for both short and long-term retail patrons. While mass-transit can be expected to alleviate some of the demand, the need for adequate parking can not be ignored. On-street parking is a positive feature, both in terms of serving short-term patrons, and in helping to activate the retail street. Adequate off-street parking should be provided for long-term patrons, particularly at night and during weekends. This need can be satisfied to some degree by using workday office parking as swing space for retail use. In neighborhood housing/retail districts, however, public parking must be provided over and above the demands of residents.

SERVICE: Service for retail spaces located within office projects can normally be accommodated through office truck bays or on-street loading areas. Neighborhood retail clusters generally do not require special service provisions other than a curbside loading zone. Neighborhood retail streets and squares should incorporate a combination of on and off-street service areas. Here again, small shops will require only on-street loading areas, however, larger retail uses such as medium-sized markets will require some off-street servicing space for delivery and trash removal.


Access from the Street

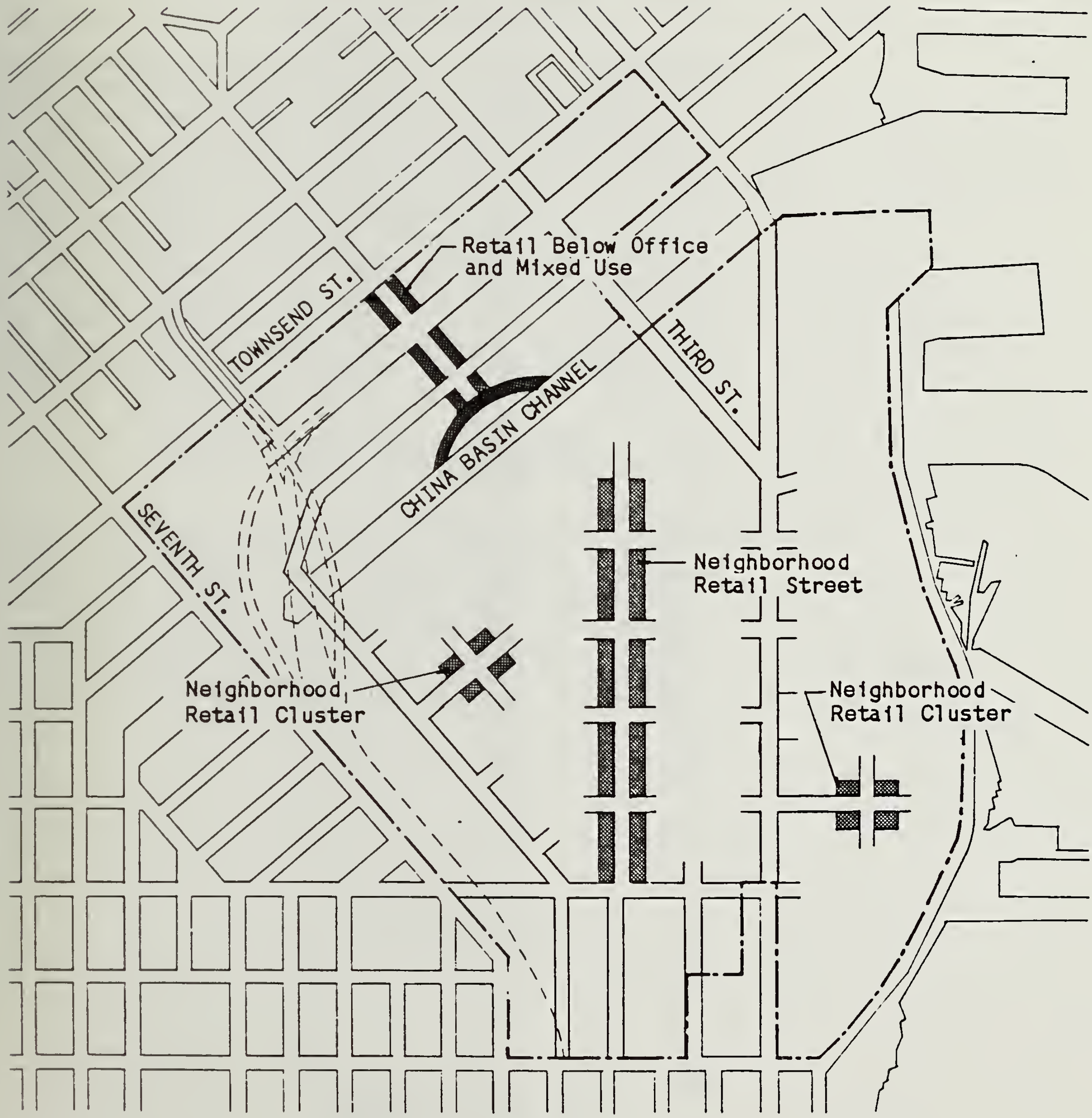
ACCESS TO OTHER USES: In neighborhood clusters and shopping streets or squares, access should be provided directly from the street to other uses above. These may be other retail services, such as business or professional offices, or housing units. This is in keeping with the traditional San Francisco neighborhood character, and serves to stimulate pedestrian activity during both day and nighttime hours.

4.1.3 SMALL SCALE RETAIL SUMMARY

Because small scale retail occurs only below other uses (office, mixed use or housing), prototypes have not been developed. Precise configurations and mixes of small scale retail will depend upon development of other uses. Retail below office and mixed uses is illustrated in Section 2.3. Retail below housing is addressed in the Housing Mix/Finance/Building Prototypes special study. Certain assumptions can be made as to the general locations of the various types of small scale retail within neighborhood areas.

The following map illustrates suggested locations for the three types of small scale retail discussed: Neighborhood Retail Clusters; Neighborhood Retail Streets and Squares; and Retail Below Office and Mixed Uses. In addition, some specialty retail (freestanding restaurants, etc.) may occur adjacent to the central open space on the south side of the Channel.

SMALL SCALE RETAIL - EXAMPLE LOCATIONS


Retail Below Office and Mixed Use
TOWNSEND ST.
THIRD ST.
CHINA BASIN CHANNEL
SEVENTH ST.
Neighborhood Retail Street
Neighborhood Retail Cluster
Neighborhood Retail Cluster

RETAIL USES

4.2 Large Scale

4.2 LARGE SCALE RETAIL USES:

The opportunity to provide acreage for large-scale or discount retail on the Mission Bay site could produce a maximum retail acreage of 16 acres (see Choices for Mission Bay, June 11, 1986). Demand for large-scale retail extends beyond the Mission Bay community, and is based on both prevailing general market conditions and a consensus of interest from retail development firms. This use has the additional advantage of not generating peak hour commutes, and potential sharing of parking with R & D and light industrial uses. It is because of this parking arrangement and the proximity to freeway access that the area south of 16th Street has been suggested as the most suitable area for large discount retail development.

4.2.1 LARGE SCALE RETAIL/DOCUMENTATION OF EXISTING BUILDINGS

A total of 14 stores were studied, of which 4 were located within San Francisco. Of the balance, approximately two-thirds (66%) were located in typical suburban shopping centers. One of the four building supply retail stores was located within San Francisco. Typically, this use is not located within a shopping center. The methodology employed was similar to that described in Section 3.0.

LARGE SCALE RETA

BASIC INFORMATIO					
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	
1	DEPT. STORE PRICE CLUB REDWOOD CITY	■	1	RRD RES RES	
2	CLOTHING MARSHALLS REDWOOD CITY	■	1	SRV RTL SRV	ONT.
3	MULTI-RETAIL SUCH A BUSINESS SAN FRANCISCO	■	4	RRD OFF RTL	INDOWS. HIC).
4	IMPORTS COST PLUS SAN FRANCISCO	■	1	RES RTL SRV	TEEL & M STREET.
5	CLOTHING ESPIRITS SAN FRANCISCO	■	1	WHS LTI LTI	.
6	DEPT. STORE BEST CO. S. SAN FRANCISCO	■	1	RES RTL RTL	ON
7	DRUG STORE LONG'S DRUGS SAN LEANDRO	■	1	RES RTL SRV	
8	DEPT. STORE BEST CO. SAN LEANDRO	■	1	RES RTL INS	LOGS.
9	STEREO FEDERATED GROUP SAN LEANDRO	■	1	RES RTL INS	
10	DEPT. STORE R-MART S. SAN FRANCISCO	■	1	RES RTL INS	ROOF.
11	DEPT. STORE CEMCO DALY CITY	■	1	RTL RTL INS	
12	TOY STORE TOYS-R-US DALY CITY	■	1	RES RTL RTL	Y.
13	IMPORTS COST PLUS DALY CITY	■	1	RES RTL INS	
14	DEPT. STORE WHOLE EARTH ACC. SAN FRANCISCO	■	1	SRV RTL INS	
15	BUILDING MATS. GOODMAN BLD. MAT. SAN FRANCISCO	■	1	SRV RTL SRV	IONS FROM LES AREA.
16	BUILDING MATS. C. MARKUS HDWR. OAKLAND	■	1	RRO LTI SRV	
17	BUILDING MATS. PAY-N-PAR SAN LEANDRO	■	1	RTL SRV INS	
18	BUILDING MATS. ORCHARD SUPPLY REDWOOD CITY	■	1	RES RTL RRO	ACHED.
19					
20					
SUMMARY **LARGE SCALE RETAIL**			1	SRV RTL SRV	H MANSARD KING AREA.
SUMMARY **BUILDING SUPPLIES RETAIL**			1	RRD LTI SRV	

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD

SITE INFORMATION SYMBOLS:

LANDSCAPING

NO LANDSCAPING

$ FEE REQUIRED

■ YES

□ NO

STREET TYPE SYMBOLS:

ONE-WAY SINGLE / MULTI-LANE

TWO-WAY SINGLE / MULTI-LANE

BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

FLAT ROOF

PITCHED ROOF

DECORATIVE SHED

MASS SYMBOLS:

SIMPLE

COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

TILT-UP

FRAME

STEEL FRAME / PRE-ENGINEERED METAL BUILDING

CONCRETE: PRE-CAST / CAST-IN PLACE

UNIT MASONRY

MATERIAL SYMBOLS:

WOOD

CONCRETE

MASONRY

METAL PANELS

STUCCO

LARGE SCALE RETAIL USES

BASIC INFORMATION					SITE INFORMATION													ACCESSIBILITY						ARCHITECTURAL FORM								
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	FRONT SETBACK (FT.)	REAR SETBACK (FT.)	SIDE SETBACK (FT.)	SIDE SETBACK (FT.)	COURTYARD / ATRIUM	LANDSCAPE - PUBLIC	LANDSCAPE - PRIVATE	STREET PARKING	PUBLIC PARKING LOT FEE REQUIRED NUMBER OF SPACES	PRIVATE PARKING LOT FEE REQUIRED NUMBER OF SPACES	PUBLIC LOADING ZONE	TRUCK LOADING DOCK	NUMBER OF DOORS	STREET TYPE	PEDESTRIAN WALK-UP	PUBLIC TRANSPORTATION	NO. OF ROUTES W/IN 2 BLOCKS	FREEWAY ACCESS W/IN 1/2 MILE	DISTANCE TO FINANCIAL CENTER (MI.)	BUILDING HEIGHT (FT.)	NUMBER OF STORIES	GROSS SQ. FT. X 1000	ROOF TYPE	MASS	TYPE OF CONSTRUCTION	MATERIAL: ROOF	MATERIAL: BUILDING	STYLE & COMMENTS:
1	DEPT. STORE PRICE CLUB REDWOOD CITY	■	1	RRD RES ☐ RTL RES	280	40	280	280	☐	🌳	🌳	☐	■ 520	☐	■	■	6	↓↓↑↑	☐	■	1	■	☐	25	1	100	⊓	▢	⤢	N.A.	⏉	INDUSTRIAL
2	CLOTHING MARSHALLS REDWOOD CITY	■	1	SRV RTL ☐ RTL SRV	160	60	60	20	☐	🚫	🌳	☐	■ 230	☐	☐	■	2	↓↓↑↑	☐	■	2	■	☐	20	1	28	⊓	⊐	▤	N.A.	◩	POST MODERN. W/ CANOPY • FRONT. LANDSCAPE WALKWAYS TO OTHER STORES IN "CENTER".
3	MULTI-RETAIL SUCH A BUSINESS SAN FRANCISCO	■	4	RRD OFF ☐ OFF RTL	20	0	20	20	☐	🌳	🚫	■	☐	■ 35	☐	☐	0	↓↑	☐	■	2	■	1.0	25	2	52	⊓	▢	⏉	N.A.	◩	INDUSTRIAL. SMALL PUNCHED WINDOWS. BUILDING AS SIGN (SUPERGRAPHIC).
4	IMPORTS COST PLUS SAN FRANCISCO	■	1	RES RTL ☐ RTL SRV	15	0	0	0	■	🌳	🌳	■	☐	☐	☐	■	2	↓↓↑↑	■	■	8	☐	1.25	25	2	16	⊓	▢	⏉	N.A.	▤	NEW WAREHOUSE/INDUSTRIAL. STEEL & GLASS ENTRIES W/ ARCADE FROM STREET.
5	CLOTHING ESPIRITS SAN FRANCISCO	■	1	WHS LTI ☐ WHS LTI	60	100	170	170	☐	🌳	🌳	■	■ 270	☐	☐	☐	3	↓↑	☐	■	2	☐	2.0	20	1	30	⌂	▢	⤢	I	⤢	MODERN INDUSTRIAL W/ MORE THAN 90% GLASS UP ON PODIUM.
6	DEPT. STORE BEST CO. S. SAN FRANCISCO	■	1	RES RTL ☐ RES RTL	180	0	50	300	☐	🚫	🌳	☐	■ 275	☐	☐	■	2	↓↓▯↑↑	☐	■	3	☐	☐	45	2	34	⇹	▢	▤	▤	▤	SHOPPING MALL. ADJACENT TO FREEWAY. SPLIT-LEVEL BUILT ON HILLSIDE. (FAKE) TILE ROOF.
7	DRUG STORE LONG'S DRUGS SAN LEANDRO	■	1	RES RTL ☐ RTL SRV	500	0	0	0	☐	🚫	🌳	☐	■ 200	☐	☐	■	2	↓↓↑↑	☐	■	3	■	☐	25	1	22	⇹	▢	▤	I	▤	SHOPPING MALL
8	DEPT. STORE BEST CO. SAN LEANDRO	■	1	RES RTL ☐ RES INS	300	30	300	0	☐	🚫	🌳	☐	■ 300	☐	☐	■	2	↓↓↑↑	☐	■	3	■	☐	30	2	50	⇹	▢	▤	I	▤	SHOPPING CENTER. DISCREET BLDGS. ARRANGED AROUND PARKING.
9	STEREO FEDERATED GROUP SAN LEANDRO	■	1	RES RTL ☐ RES INS	100	0	100	100	☐	🚫	🌳	☐	■ 150	☐	☐	■	1	↓↓↑↑	☐	■	3	■	☐	30	1	30	⌂	▢	▤	I	▤	SHOPPING CENTER
10	DEPT. STORE K-MART S. SAN FRANCISCO	■	1	RES RTL ☐ RTL INS	180	0	150	50	☐	🚫	🌳	☐	■ 300	☐	☐	■	2	↓↓▯↑↑	☐	■	3	☐	☐	20	1	80	⊓	▢	▤	▤	▤	SHOPPING CENTER. CLAY TILE ROOF.
11	DEPT. STORE GEMCO DALY CITY	■	1	RTL RTL ☐ RTL INS	225	0	80	80	☐	🌳	🌳	☐	■ 275	☐	■	■	4	↓↓↑↑	☐	■	2	■	☐	25	1	67	⊓	▢	▤	N.A.	▤	SHOPPING CENTER.
12	TOY STORE TOYS-R-US DALY CITY	■	1	RES RTL ☐ RTL RTL	200	0	70	70	☐	🚫	🌳	☐	■ 250	☐	☐	■	1	↓↓↑↑	☐	■	1	■	☐	25	1	33	⊓	▢	⤢	N.A.	◩	WAREHOUSE. OVER-SCALED ENTRY.
13	IMPORTS COST PLUS DALY CITY	■	1	RES RTL ☐ RTL INS	50	200	50	50	☐	🚫	🌳	☐	■ 80	☐	☐	■	2	↓↓↑↑	☐	■	1	■	☐	20	1	18	⊓	▢	⤢	N.A.	◩	WAREHOUSE.
14	DEPT. STORE WHOLE EARTH ACC. SAN FRANCISCO	■	1	SRV RTL ☐ RTL INS	60	10	90	90	☐	🚫	🚫	■	■ 150	☐	☐	■	1	↓↓▯↑↑	☐	■	6	■	3.8	20	1	25	⌂	⊐	▱	N.A.	I	WAREHOUSE W/ SUPERGRAPHIC.
15	BUILDING MATS. GOODMAN BLD. MAT. SAN FRANCISCO	■	1	SRV RTL ☐ RTL SRV	0	10	90	90	■	🚫	🚫	■	■ 180	☐	■	■	2	↓↓▯↑↑	☐	■	6	■	3.8	35	1	81	⊓	⊐	▱	N.A.	I	WAREHOUSE: MANY SMALL ADDITIONS FROM SEVERAL YEARS W/ OUTDOOR SALES AREA.
16	BUILDING MATS. C. MARKUS HDWR. OAKLAND	■	1	RRD LTI ☐ RES SRV	20	10	10	15	■	🌳	🚫	■	☐	■ 80	■	■	5	↓↑	☐	■	2	■	1	20	1	100	⌂	▢	▤	N.A.	▤	INDUSTRIAL. TURN STREET INTO "SIDEWALK SALE".
17	BUILDING MATS. PAY-N-PAK SAN LEANDRO	■	1	RTL SRV ☐ RES INS	275	0	50	50	☐	🚫	🌳	☐	■ 350	☐	■	■	2	↓↓↑↑	☐	■	3	■	☐	30	1	50	⇹	▢	▤	I	▤	SHOPPING CENTER
18	BUILDING MATS. ORCHARD SUPPLY REDWOOD CITY	■	1	RES RTL ☐ RTL RRD	150	30	0	0	■	🚫	🌳	☐	■ 390	☐	■	■	2	↓↓▯↑↑	☐	☐	N.A.	■	☐	22	1	50	⇹	▢	⤢	I	◩	WAREHOUSE W/ GREENHOUSE ATTACHED.
19				☐																												
20				☐																												
	SUMMARY **LARGE SCALE RETAIL**		1	SRV RTL ☐ RTL SRV	275	10	275	90	☐	🚫	🌳	☐	■ 350	☐	☐	■	2	↓↓↑↑	☐	■	3	■	☐	25	1	41	⊓	▢	▤	N.A.	▤	MASONRY SHOPPING CENTER WITH MANSARD ROOF AT ENTRY. TREES IN PARKING AREA.
	SUMMARY **BUILDING SUPPLIES RETAIL**		1	RRD LTI ☐ RES SRV	275	10	10	15	■	🚫	🚫	■	■ 180	☐	■	■	3	↓↓↑↑	☐	■	3	■	☐	27	1	70	⇹	▢	▤	I	▤	LARGE WAREHOUSE BUILDING WITH OUTDOOR SALES AREA.

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRD	RAILROAD

SITE INFORMATION SYMBOLS:

🌳	LANDSCAPING
🚫	NO LANDSCAPING
$	FEE REQUIRED
■	YES
☐	NO

STREET TYPE SYMBOLS:

↑ / ↑↑	ONE-WAY SINGLE / MULTI-LANE
↓↑ / ↓↓↑↑	TWO-WAY SINGLE / MULTI-LANE
↓▯↑ / ↓↓▯↑↑	BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

⊓	FLAT ROOF
⌂	PITCHED ROOF
⇹	DECORATIVE SHED

MASS SYMBOLS:

▢	SIMPLE
⊐	COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

⤢	TILT-UP
▱	FRAME
I	STEEL FRAME / PRE-ENGINEERED METAL BUILDING
⏉	CONCRETE: PRE-CAST / CAST-IN PLACE
▤	UNIT MASONRY

MATERIAL SYMBOLS:

▱	WOOD
⏉	CONCRETE
▤	MASONRY
I	METAL PANELS
◩	STUCCO

4.2.2 LARGE SCALE RETAIL/ANALYSIS

BASIC INFORMATION: Six of the stores were general merchandise department stores, two specialized in clothing, two in imports, and the others sold either drugs, toys, or stereo equipment. All of the buildings were single-tenanted. Adjacent uses to large scale retail buildings were residential or other retail, service, or institutional uses. Adjacent uses to building supply retailers included light industrial uses, other retail outlets, or railroad trackage.

SITE INFORMATION: Front setbacks contained either planting strips (less than 20 feet) or parking lots ranging up to 500 feet with the usual being 200 feet. The rear setback was typically alley width 50 feet or less, and the side setbacks were reserved for parking. Large scale retail buildings typically have neither atrium nor courtyard space. Building supply retail stores, however, were characterized by having open-to-the-air courtyards within which "sidewalk sales" were conducted. Public landscaping was usually nonexistent and private landscaping was reserved to planting medians/plots in parking areas. Loading zones were not found at large scale retail stores, while loading areas were typical at the building supply stores. Street parking was allowed at urban locations. Within large suburban shopping centers, parking was free and parking ratios of 1:200 gross square feet were typical. Truck loading requirements were two or three per user.

ACCESSIBILITY: Street types are typically multi-lane, two-way, with the occasional boulevard. Being regionally oriented stores, freeway access was usually within one-half (0.5) mile. Public transportation was available to all sites, with the average service being three routes. These uses are not pedestrian-oriented, nor are they sited to relate to the city center.

RETAIL USES

4.2 Large Scale

ARCHITECTURAL FORM: Almost all of the buildings studied were of one story of 20 to 25 feet. Only within the more urban areas were two story buildings found, and then only with the smaller (less than 20,000 square foot floor plate) buildings. Three different sizes of footplates emerged from the study: Buildings of approximately 35,000 to 50,000 square feet and the largest at 75,000 square feet. Typically, the buildings were flat roofed, often with a metal mansard roof and decorative entry. The massing of the buildings was usually square, so as to allow maximum flexibility for display. Types of construction found were painted concrete tilt- up or split-face concrete masonry units.

4.2.3 LARGE SCALE RETAIL/PROTOTYPES

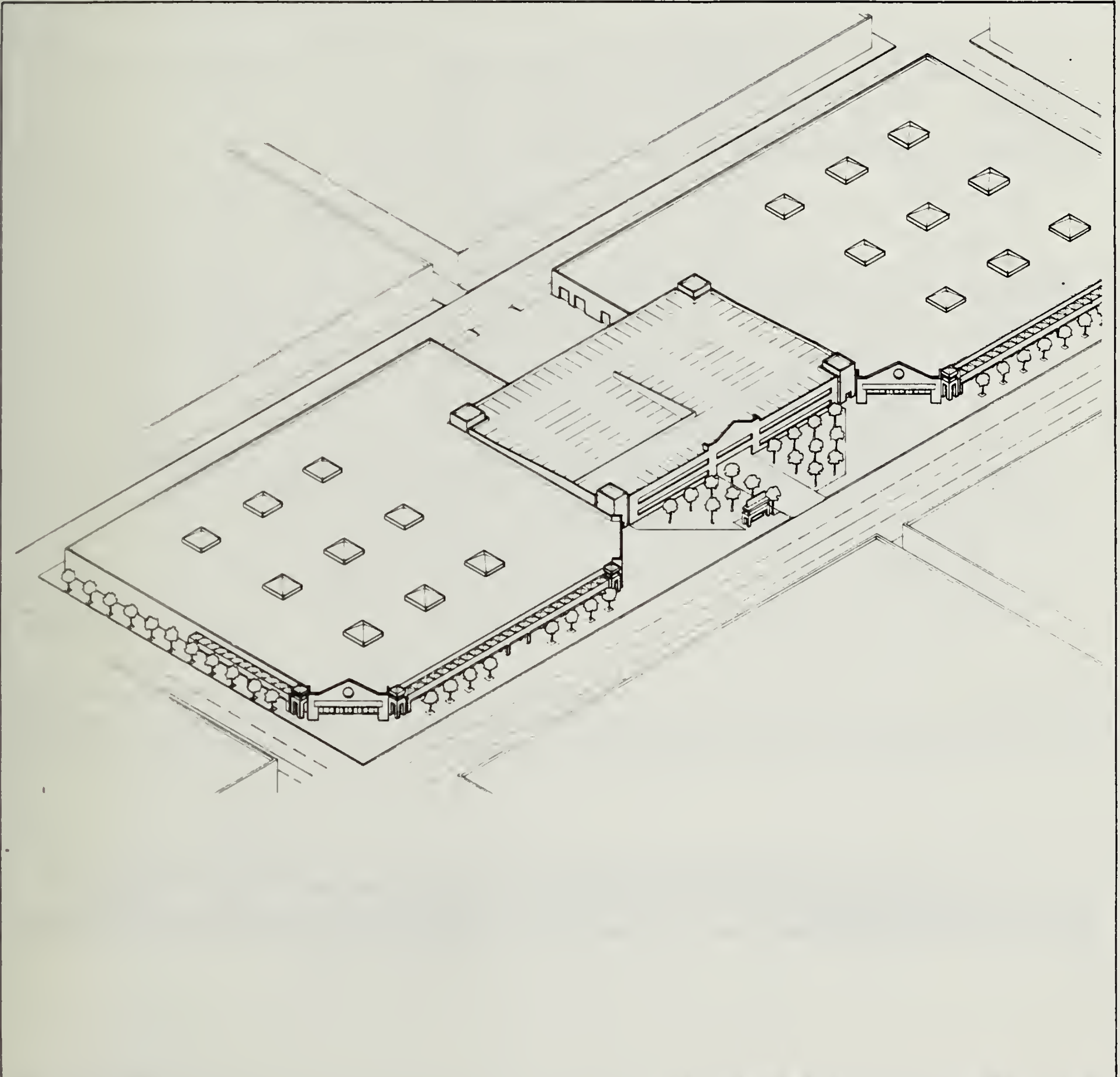
LARGE SCALE RETAIL/DUAL RETAIL

LARGE SCALE RETAIL/MULTIPLE RETAIL

RETAIL USES

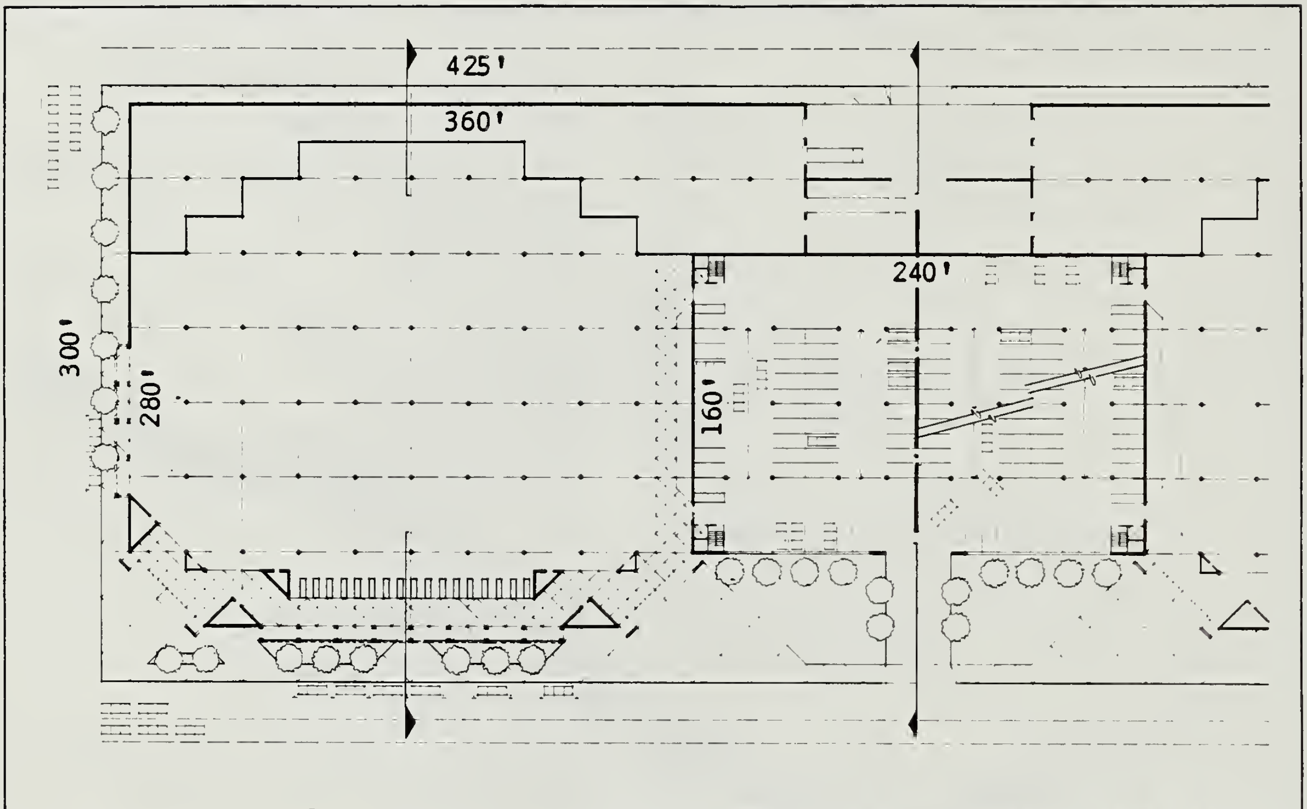
4.2 Large Scale

PROTOTYPE:	Large Scale Retail / Dual Retail
BUILDING PERCENTAGE LOT COVERAGE:	84%
USABLE OPEN SPACE:	13%
BLOCK SIZE:	850' x 300' (5.85 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE:	29,950 square feet/acre
FLOOR AREA RATIO:	1.09
FRONT SETBACK:	20'
REAR SETBACK:	0'
SIDE SETBACK:	15' / 5'
PUBLIC LANDSCAPING:	Street trees
PRIVATE LANDSCAPING:	Buffer at parking structure
PARKING LOCATION:	Structure between two stores
PARKING RATIO:	1:450
PARKING SPACES:	385
NUMBER OF PARKING FLOORS:	3
BUILDING FORM:	2 single-story promotional retail stores with attached parking structure
TOTAL LEASABLE FLOOR AREA:	175,200 square feet
TYPICAL FLOOR PLATE AREA:	213,600 square feet
TOTAL NUMBER OF FLOORS:	1
BUILDING HEIGHT:	20'
FLOOR-TO-FLOOR HEIGHT FIRST FLOOR:	20'
FLOOR-TO-FLOOR HEIGHT TYPICAL:	20'
LEASE DEPTHS:	260'
COMMENTARY:	Landscape used to buffer parking.

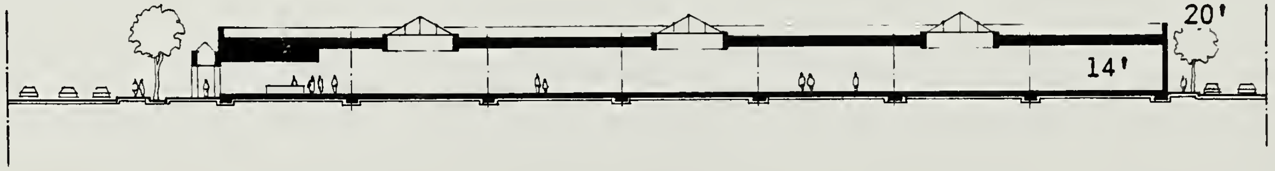


Large Scale Retail / 2 Stores: View

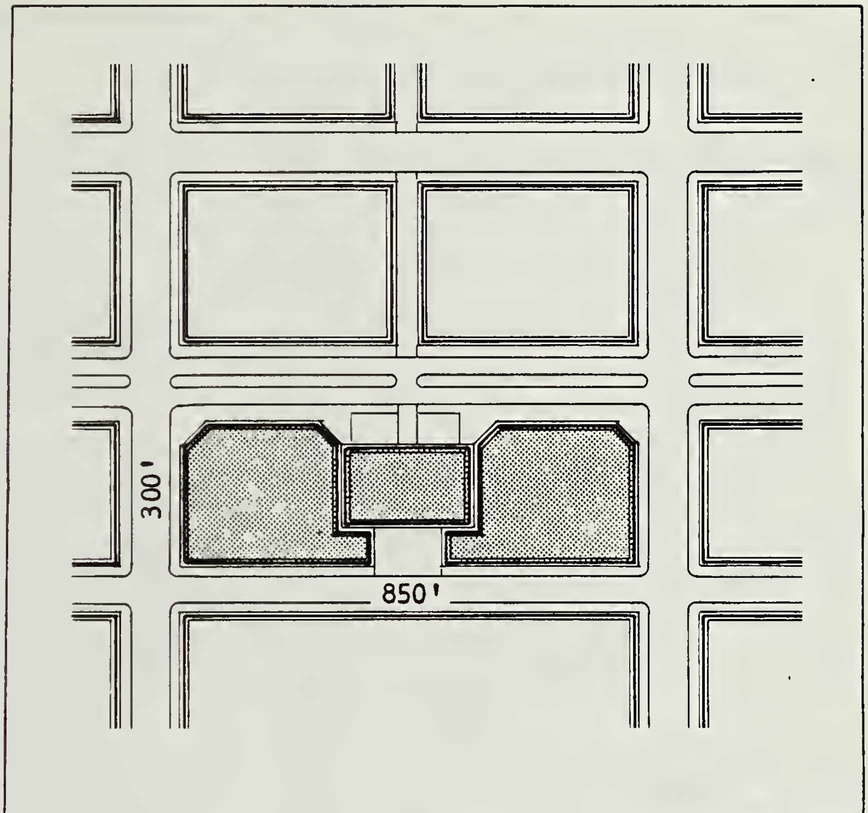
4.2 Large Scale



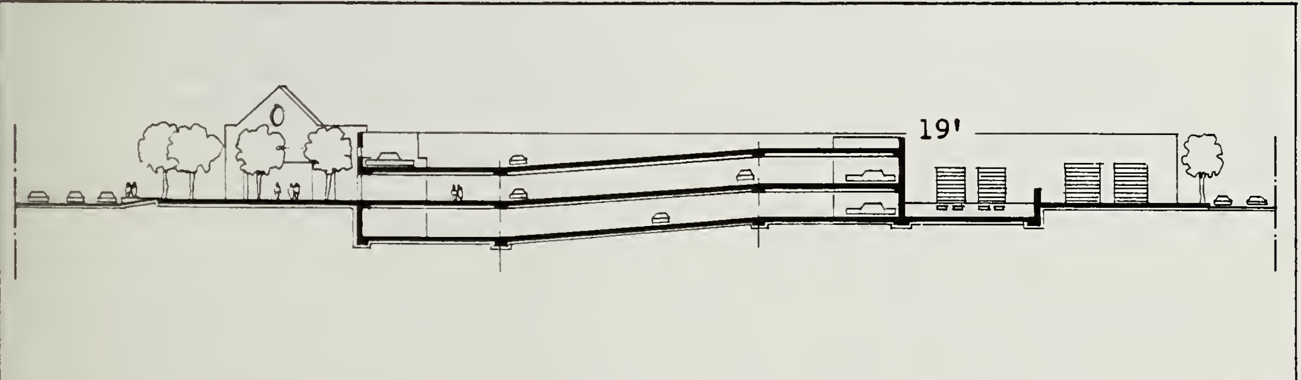
Typical Floor Plan: Store w/Shared Parking



Transverse Section



Site Plan

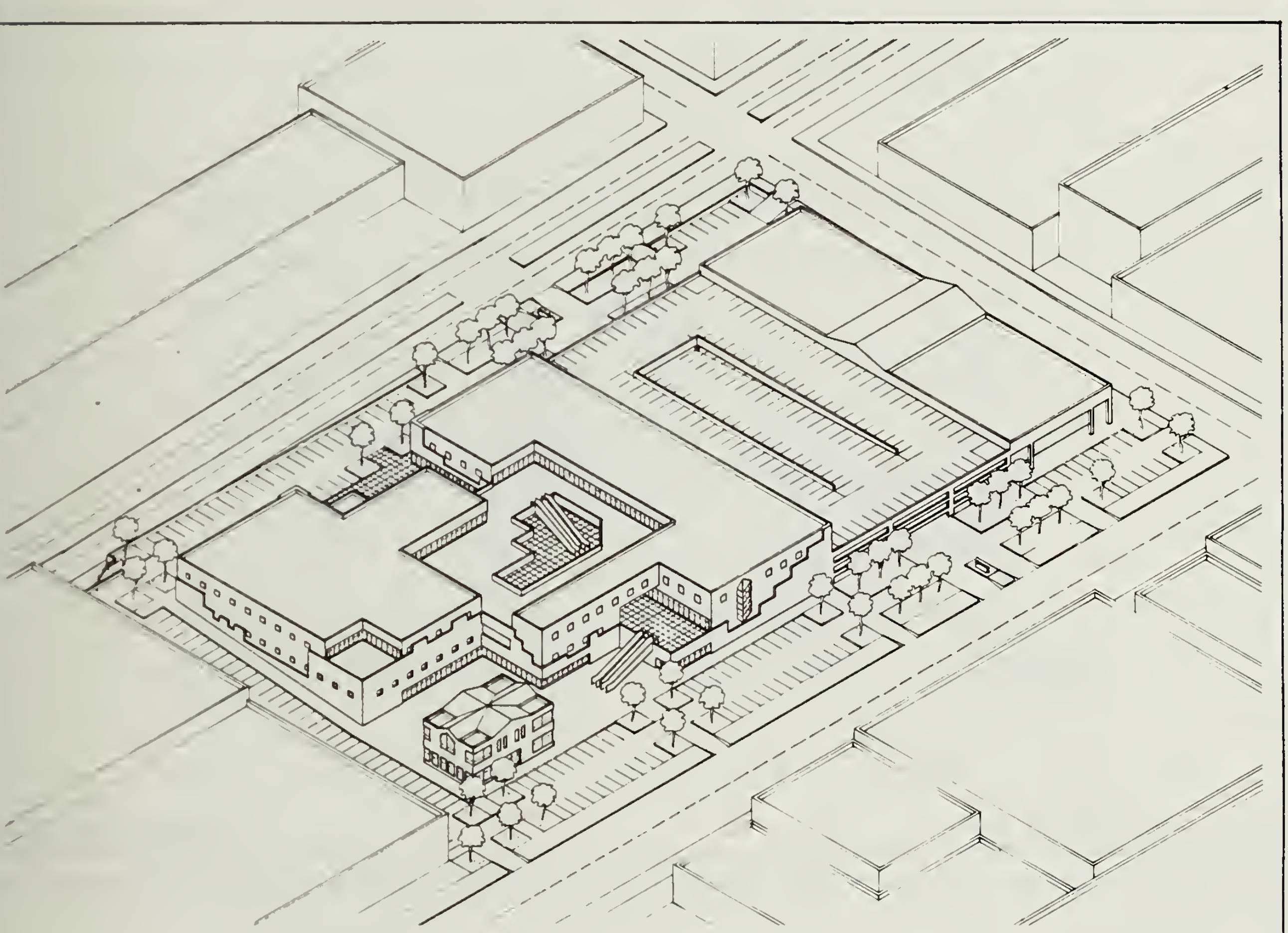


Transverse Section: Parking and Loading Area

RETAIL USES

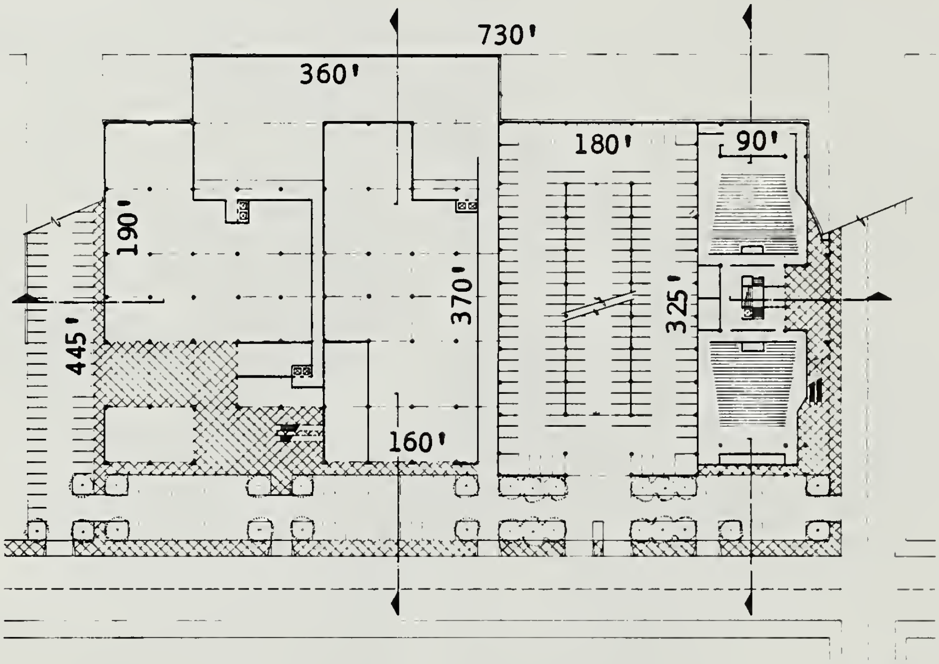
4.2 Large Scale

PROTOTYPE:	Large Scale Retail / Multiple Retail
BUILDING PERCENTAGE LOT COVERAGE:	29%
USABLE OPEN SPACE:	12%
BLOCK SIZE:	730' x 445' (7.50 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE:	38,720 square feet/acre
FLOOR AREA RATIO:	1.79
FRONT SETBACK:	70'
REAR SETBACK:	70'
SIDE SETBACK:	20'
PUBLIC LANDSCAPING:	Street trees, boulevard type street
PRIVATE LANDSCAPING:	Plaza and buffer in parking area
PARKING LOCATION:	Surface and in parking structure
PARKING RATIO:	1:275
PARKING SPACES:	1,050
NUMBER OF PARKING FLOORS:	Surface and 5 level structure
BUILDING FORM:	Mutiple volume street oriented shopping center/theater complex with atrium/courtyard
TOTAL LEASABLE FLOOR AREA:	288,850 square feet
TYPICAL FLOOR PLATE AREA:	153,675 square feet
TOTAL NUMBER OF FLOORS:	3
BUILDING HEIGHT:	60'
FLOOR-TO-FLOOR HEIGHT FIRST FLOOR:	20'
FLOOR-TO-FLOOR HEIGHT TYPICAL:	20'
LEASE DEPTHS:	Varies
COMMENTARY:	Multi-level plaza, 4 theaters, food court, must have site with 18' grade differential, possible outdoor restaurants on private terraces.

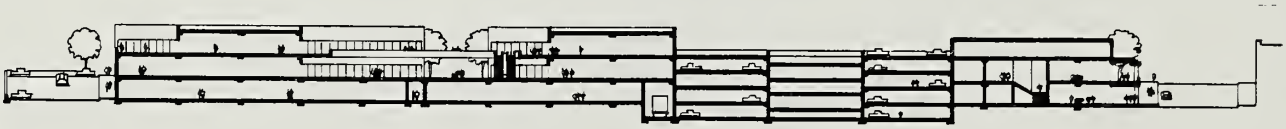


Large Scale Retail / Multiple Stores: View

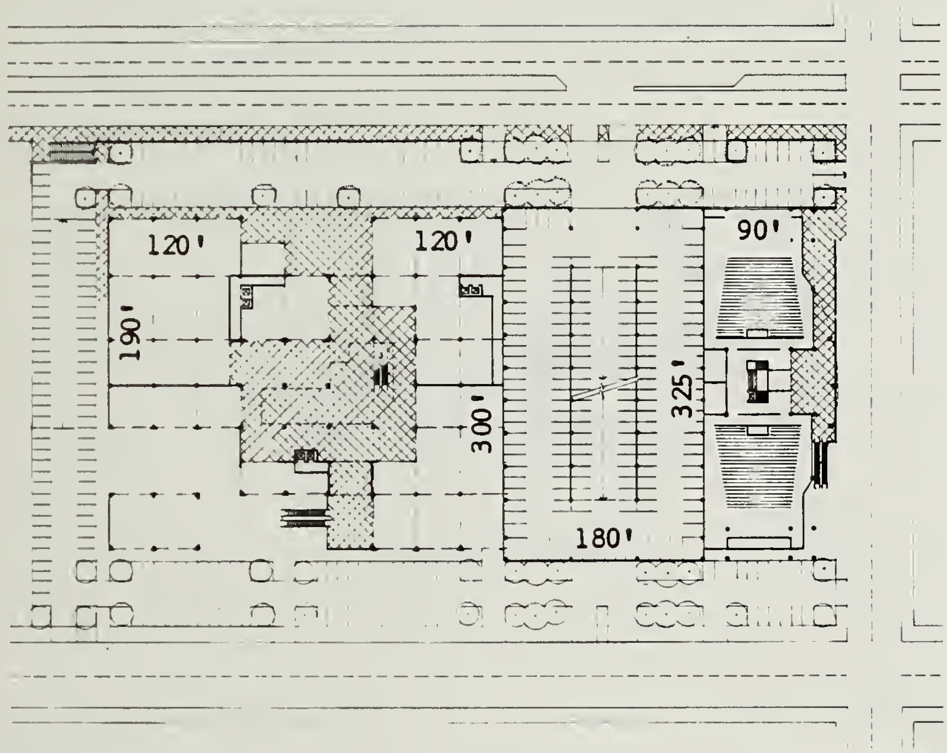
4.2 Large Scale



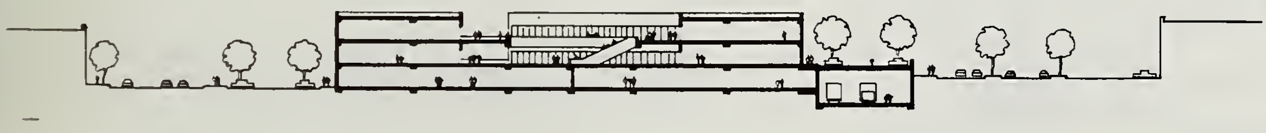
Street Level Plan



Longitudinal Section

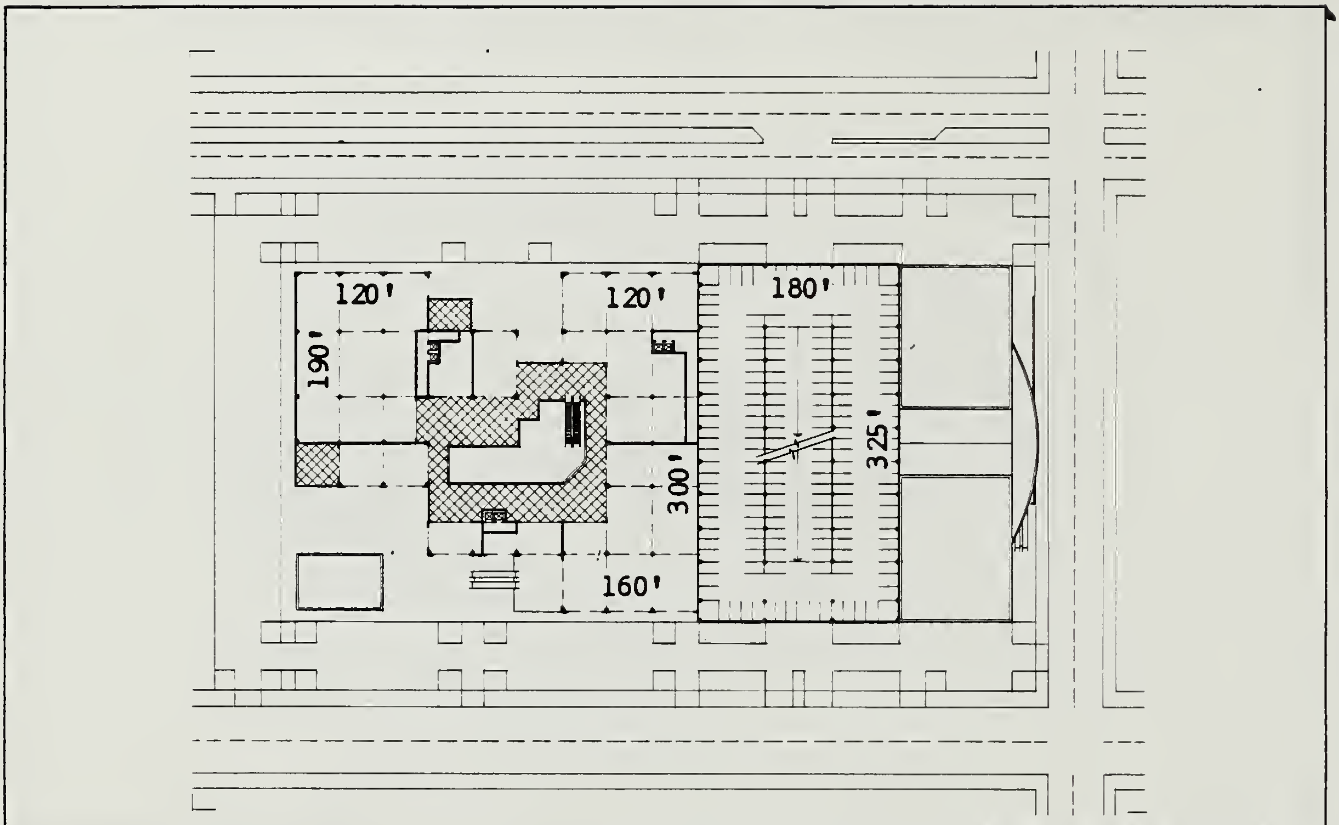


Plaza Level Floor Plan

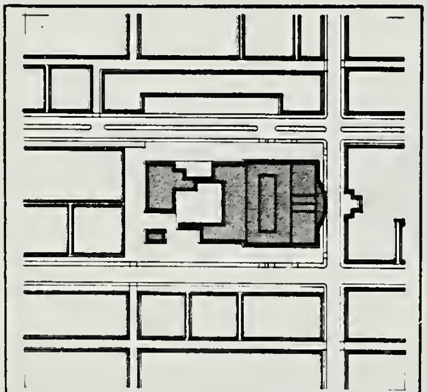


Transverse Section

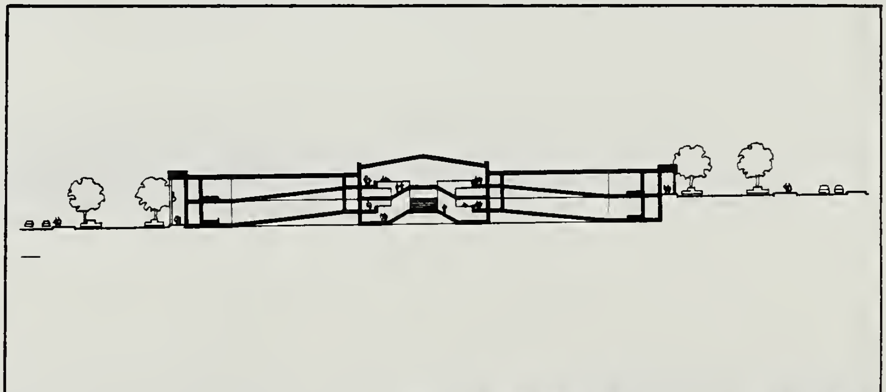
4.2 Large Scale



Upper Level Floor Plan



Site Plan



Transverse Section: Theaters

4.3 FURNITURE RETAIL USES:

Other retail uses suggested for Mission Bay include large scale (75,000 to 100,000) square feet gross non-custom furniture stores (Breuners, etc.) and medium-sized (25,000 to 40,000 square feet gross) custom furniture stores (Vogue, etc.). The large non-custom furniture stores historically have been located adjacent to freeway interchanges and have taken advantage of freeway views for advertising and promotion of store identity. It would then seem likely that this non-custom furniture store use would need to co-exist with other large scale retail concerns in the parcel south of 16th Street. The smaller custom furniture stores have tended to congregate in the vicinity of the "Showplace Square" area (8th & Brannan Streets) to take advantage of the "designer center" atmosphere. Therefore, this use should co-exist with any other contemplated development of custom retail/ wholesale uses.

4.3.1 FURNITURE RETAIL/DOCUMENTATION OF EXISTING BUILDINGS

A total of 9 furniture retail buildings were recorded. All of the non-custom stores were located outside of the City of San Francisco, while the smaller custom furniture stores were located adjacent to the "Showplace Square" area. The non-custom stores were usually located in shopping centers adjacent to the freeway.

RETAIL FURNITURE

REFERENCE NUMBER	BASIC INFORMATI SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USE	
1	NON-CUSTOM LEVITZ FURN. S. SAN FRANCISCO	■	1	RR RTL ☐ OF	
2	NON-CUSTOM FURNISHINGS 2000 S. SAN FRANCISCO	■	1	RE SRV ☐ IN	RY UNUSED.
3	NON-CUSTOM BRUENER'S DALY CITY	■	1	RT RTL ☐ SR	RY
4	NON-CUSTOM SCANDINAVIAN DSN. SAN MATEO	■	1	RT RTL ☐ SR	AL
5	CUSTOM CONCEPTS SAN FRANCISCO	■	2	OF RTL ☐ OF	MODERN
6	CUSTOM AMBIENTE SAN FRANCISCO	■	1	RT RTL ☐ SR	
7	CUSTOM VOGUE SAN FRANCISCO	■	1	SR RTL ☐ SR	" INFLUENCE COURT.
8	CUSTOM LEATHER CTR. SAN FRANCISCO	■	4	RE RTL ☐ SR	
9	CUSTOM - OFFICE 650 WILLIAMS SAN FRANCISCO	■	3	RT RES ☐ SR	OFFICE.
10				☐	
11				☐	
12				☐	
13				☐	
14				☐	
15				☐	
16				☐	
17				☐	
18				☐	
19				☐	
20				☐	
SUMMARY NON-CUSTOM FURNITURE RETAIL				RT RTL ☐ SR	Y.
SUMMARY CUSTOM FURNITURE RETAIL				RE RTL ☐ SR	

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD.

SITE INFORMATION SYMBOLS:

LANDSCAPING

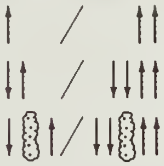
NO LANDSCAPING

$ FEE REQUIRED

■ YES

☐ NO

STREET TYPE SYMBOLS:



ONE-WAY SINGLE / MULTI-LANE

TWO-WAY SINGLE / MULTI-LANE

BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

FLAT ROOF

PITCHED ROOF

DECORATIVE SHED

MASS SYMBOLS:

SIMPLE

COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

TILT-UP

FRAME

STEEL FRAME /
PRE-ENGINEERED
METAL BUILDING

CONCRETE: PRE-CAST /
CAST-IN PLACE

UNIT MASONRY

MATERIAL SYMBOLS:

WOOD

CONCRETE

MASONRY

METAL PANELS

STUCCO

RETAIL FURNITURE USES

REFERENCE NUMBER	BASIC INFORMATION				SITE INFORMATION													ACCESSIBILITY						ARCHITECTURAL FORM								
	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	FRONT SETBACK (FT.)	REAR SETBACK (FT.)	SIDE SETBACK (FT.)	SIDE SETBACK (FT.)	COURTYARD / ATRIUM	LANDSCAPE - PUBLIC	LANDSCAPE - PRIVATE	STREET PARKING	PUBLIC PARKING LOT FEE REQUIRED NUMBER OF SPACES	PRIVATE PARKING LOT FEE REQUIRED NUMBER OF SPACES	PUBLIC LOADING ZONE	TRUCK LOADING DOCK	NUMBER OF DOORS	STREET TYPE	PEDESTRIAN WALK-UP	PUBLIC TRANSPORTATION	NO. OF ROUTES W/IN 2 BLOCKS	FREEWAY ACCESS W/IN 1/2 MILE	DISTANCE TO FINANCIAL CENTER (MI.)	BUILDING HEIGHT (FT.)	NUMBER OF STORIES	GROSS SQ. FT. X 1000	ROOF TYPE	MASS	TYPE OF CONSTRUCTION	MATERIAL: ROOF	MATERIAL: BUILDING	STYLE & COMMENTS:
1	NON-CUSTOM LEVITZ FURN. S. SAN FRANCISCO	■	1	RRO RTL ☐ RTL OFF	100	16	12	12	☐	🌳	🌳	☐	■ 240	☐	■	■	4	↓↑	☐	☐		■	☐	30	1.5	150	⊓	⊏	⍁	N.A.	⊤	WAREHOUSE W/ MEZZANINE & SUPERGRAPHICS
2	NON-CUSTOM FURNISHINGS 2000 S. SAN FRANCISCO	■	1	RES SRV ☐ RTL INS	10	65	60	60	☐	🚫	🌳	☐	■ 70	☐	■	■	2	↓↓⁞↑↑	☐	■	1	☐	☐	25	1	16	⊓	⊏	⍁	N.A.	▧	WAREHOUSE. LARGE FRONT ENTRY UNUSED. SIDE ENTRY OFF PARKING USED.
3	NON-CUSTOM BRUENER'S DALY CITY	■	1	RTL RTL ☐ RTL SRV	230	60	60	60	☐	🚫	🌳	☐	☐ 500	☐	☐	■	3	↓↓⁞↑↑	☐	■	3	■	☐	30	2.5	100	⌂	▢	▤	⌶	▤	WAREHOUSE W/ DECORATED ENTRY
4	NON-CUSTOM SCANDINAVIAN DSN. SAN MATEO	■	1	RTL RTL ☐ RTL SRV	0	0	0	0	■	🚫	🚫	■	☐	■ 13	■	■	1	↓↑		■	1	☐	☐	25	1.5	20	⊓	⊏	▱	N.A.	▧	WAREHOUSE. MODERN. INDUSTRIAL
5	CUSTOM CONCEPTS SAN FRANCISCO	■	2	OFF RTL ☐ RTL OFF	0	0	0	0	☐	🚫	🚫	■	☐	☐	■	■	1	↓↑	■	■	6	■	1.8	30	2	14	⊓	▢	▤	N.A.	▤	RENOVATED WAREHOUSE / POST MODERN ENTRY COURT • PODIUM.
6	CUSTOM AMBIENTE SAN FRANCISCO	■	1	RTL RTL ☐ RTL SRV	0	0	0	0	☐	🚫	🚫	☐	☐	☐	■	■	1	↓↑	■	■	6	■	1.8	15	1	5	⊓	▢	▱	N.A.	▧	INDUSTRIAL
7	CUSTOM VOGUE SAN FRANCISCO	■	1	SRV RTL ☐ RTL SRV	0	0	0	0	■	🌳	🚫	■	☐	☐	■	■	1	↓↓↑↑	■	■	6	■	1.8	15	1	11	⊓	▢	▱	N.A.	▧	INDUSTRIAL W/ "ART MODERNE" INFLUENCE & MUCH GLAZING. ENTRY FORECOURT.
8	CUSTOM LEATHER CTR. SAN FRANCISCO	■	4	RES RTL ☐ RTL SRV	0	0	0	0	■	🚫	🌳	■	☐	☐	☐	■	2	↓↑	☐	■	3	■	1.9	30	2	100	⊓	⊏	⊤	N.A.	▧	INDUSTRIAL W/ MUCH GLAZING. INTERNAL ATRIUM / MALL.
9	CUSTOM - OFFICE 650 WILLIAMS SAN FRANCISCO	■	3	RTL RES ☐ RES SRV	60	0	0	0	☐	🌳	🚫	■	■ 10	■ 5	☐	■	1	↓↓↑↑	■	■	1	■	1.5	30	2	10	⊓	▢	▱	N.A.	▧	MULTI-TENANT / RESIDENTIAL. OFFICE. FURNITURE SALES / WAREHOUSE
10				☐																												
11				☐																												
12				☐																												
13				☐																												
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18				☐																												
19				☐																												
20				☐																												
SUMMARY NON-CUSTOM FURNITURE RETAIL				RTL RTL ☐ RTL SRV	85	35	35	35	☐	🚫	🌳	☐	■ 200	☐	■	■	3	↓↓⁞↑↑	☐	■	1	■	☐	27	1.5	70	⊓	⊏	⍁	N.A.	▧	WAREHOUSE W/ DECORATED ENTRY. SHOPPING CENTER STYLE.
SUMMARY CUSTOM FURNITURE RETAIL				RES RTL ☐ RTL SRV	5	0	0	0	☐	🚫	🚫	■	☐	☐	■	■	1	↓↑	■	■	4	■	1.8	24	1.5	16	⊓	▢	▱	N.A.	▧	INDUSTRIAL. RENOVATED INTO IMAGE BUILDING.

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD

SITE INFORMATION SYMBOLS:

🌳	LANDSCAPING
🚫	NO LANDSCAPING
$	FEE REQUIRED
■	YES
☐	NO

STREET TYPE SYMBOLS:

↑ / ↑↑	ONE-WAY SINGLE / MULTI-LANE
↓↑ / ↓↓↑↑	TWO-WAY SINGLE / MULTI-LANE
↓⁞↑ / ↓↓⁞↑↑	BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

⊓	FLAT ROOF
⌂	PITCHED ROOF
⋒	DECORATIVE SHED

MASS SYMBOLS:

▢	SIMPLE
⊏	COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

⍁	TILT-UP
▱	FRAME
⌶	STEEL FRAME / PRE-ENGINEERED METAL BUILDING
⊤	CONCRETE: PRE-CAST / CAST-IN PLACE
▤	UNIT MASONRY

MATERIAL SYMBOLS:

▱	WOOD
⊤	CONCRETE
▤	MASONRY
⌶	METAL PANELS
▧	STUCCO

4.3.2 FURNITURE RETAIL/ANALYSIS

BASIC INFORMATION: The non-custom stores were all single-tenanted. The custom shop occasionally shared space with like businesses. Adjacent uses typically were other retail stores, service establishments, and residences.

SITE INFORMATION: Setbacks were determined by location. Non-custom stores were located outside of the City; setbacks were reserved for parking and were between 60 and 100 feet. Alternatively, the custom furniture stores were infill buildings and had zero setbacks. Atrium/courtyard spaces were found in approximately one third (33%) of the buildings studied. This typically was a feature of a previous renovation and was utilized for parking, if anything. Public and private landscaping typically were not found, and, if existent took the form of street trees. At the large suburban non-custom stores, parking was free and exhibited ratios of 1:350 square feet. The custom stores provided no parking, and relied on pay parking facilities on adjacent blocks or on-street parking. Public loading zones were not found at the larger stores, while on-street loading areas were typical for the urban stores. Truck loading requirements averaged 1:30,000 gross square feet.

ACCESSIBILITY: Street types at suburban locations were often multi-lane boulevards; however, those serving the custom stores were usually narrow (approx. 50 feet) two-way streets. Freeway access was important to the large non-custom stores. Public transportation was available to almost all sites and was important to the custom furniture shops where parking was in short supply. Neither use appeared to require siting adjacent to the city center; however, the small furniture stores have located adjacent to the "Showplace Square" area, taking advantage of the proximity to the wholesale furniture stores.

4.3 Furniture

ARCHITECTURAL FORM: Large retail furniture stores typically were found to be one or two stories of 9 or 10 feet clear height. The interior space (in the larger stores) was sub-divided into multiple rooms approximately 12'-6" and 15-'0" in size and furnished with matched groupings. In the custom furniture stores, the floor to ceiling heights tended to be taller (approx. 12 feet at ground level and 10 feet above grade) and the spaces were decorated so as to display the furniture in the round. The typical floor plates for the non-custom furniture stores were rectilinear with gross square footages in the 40,000 to 60,000 thousand square foot range. Attached to this was the warehousing facility which could be accessed by the customer for pick-up. The custom stores typically had floorplates of fifteen (15,000) to twenty (20,000) thousand square feet, with no appended warehouses. The usual roof form was flat roofed often with a metal mansard shaped roof and decorative entry. The facades usually had a large percentage of glazing for display. The non-custom stores were of tilt-up construction with painted surfaces or brick veneer, while the custom furniture stores were usually renovated industrial buildings.

4.3.3 FURNITURE RETAIL/PROTOTYPES

FURNITURE RETAIL/NON CUSTOM

FURNITURE RETAIL/CUSTOM

RETAIL USES

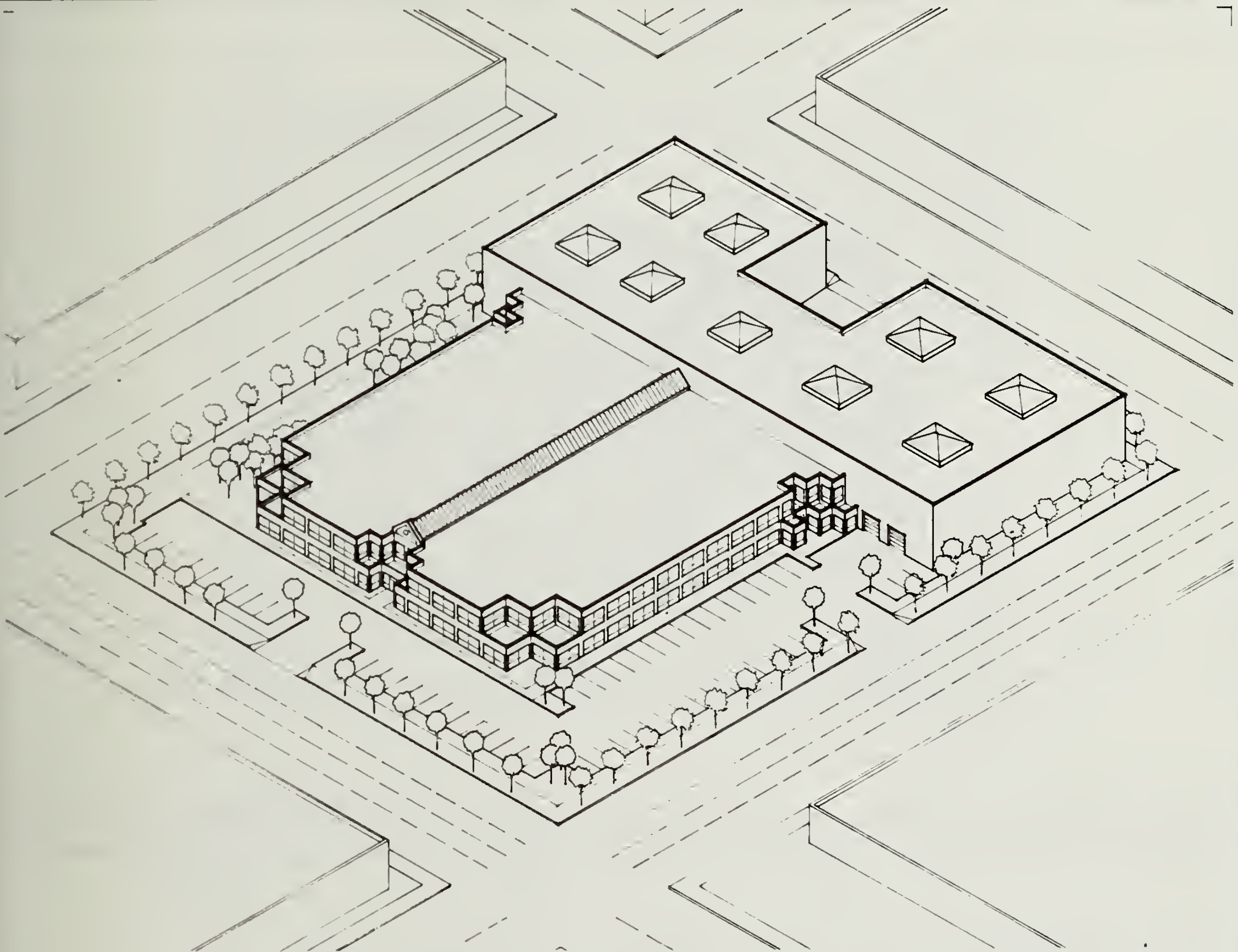
4.3 Furniture

PROTOTYPE: Furniture Retail / Non-Custom

BUILDING PERCENTAGE LOT COVERAGE: 64%
USABLE OPEN SPACE: 6%
BLOCK SIZE: 385'x 285' (2.50 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE: 36,319 square feet/acre
FLOOR AREA RATIO: 0.83
FRONT SETBACK: 55'
REAR SETBACK: 0'
SIDE SETBACK: 5'
PUBLIC LANDSCAPING: Street trees
PRIVATE LANDSCAPING: Buffer at parking
PARKING LOCATION: Front and side
PARKING RATIO: 1:905
PARKING SPACES: 58
NUMBER OF PARKING FLOORS: Surface

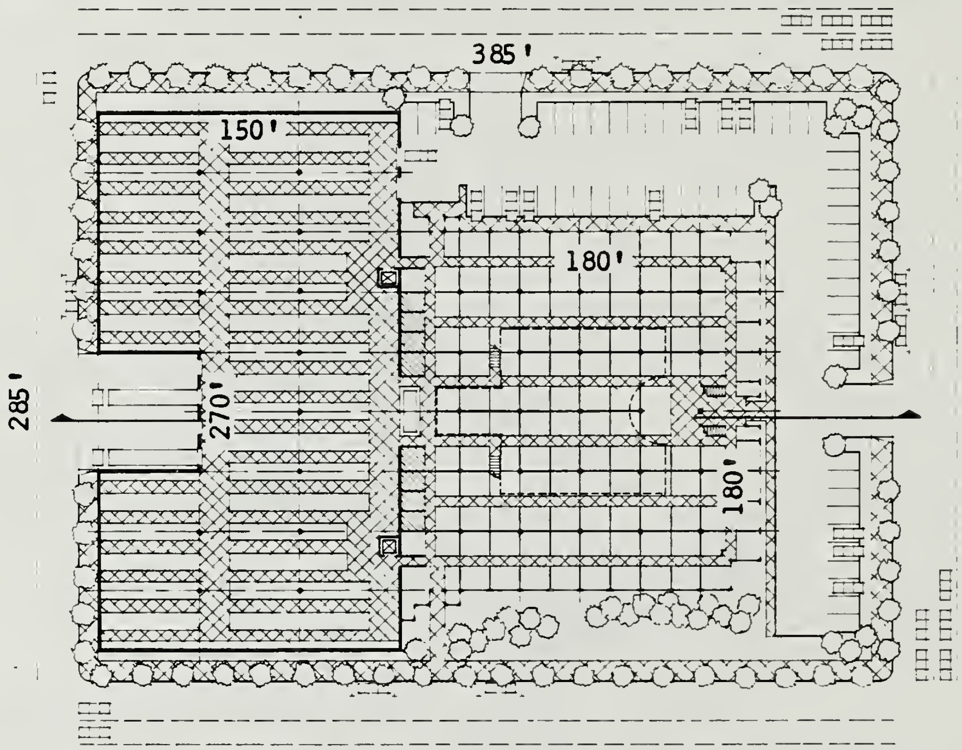
BUILDING FORM: Two-story showroom with attached warehouse
TOTAL LEASABLE FLOOR AREA: 91,525 square feet
TYPICAL FLOOR PLATE AREA: 32,280 (showroom), 37,500 (warehouse)
TOTAL NUMBER OF FLOORS: 2 at showroom, 1 at warehouse
BUILDING HEIGHT: 25'
FLOOR-TO-FLOOR HEIGHT FIRST FLOOR: 1112'
FLOOR-TO-FLOOR HEIGHT TYPICAL: 12'
LEASE DEPTHS: 180' subdivided into "rooms" 12.5' by 15'

COMMENTARY: Landscape used to buffer parking.

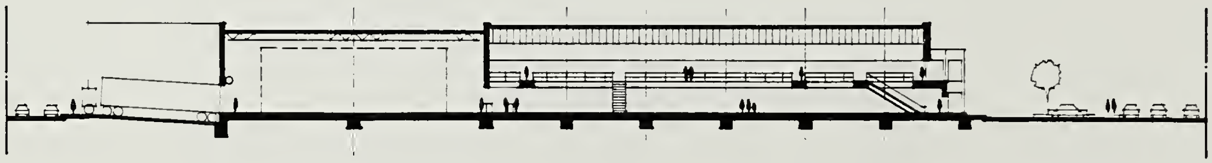


Large Non Custom Furniture Store: View

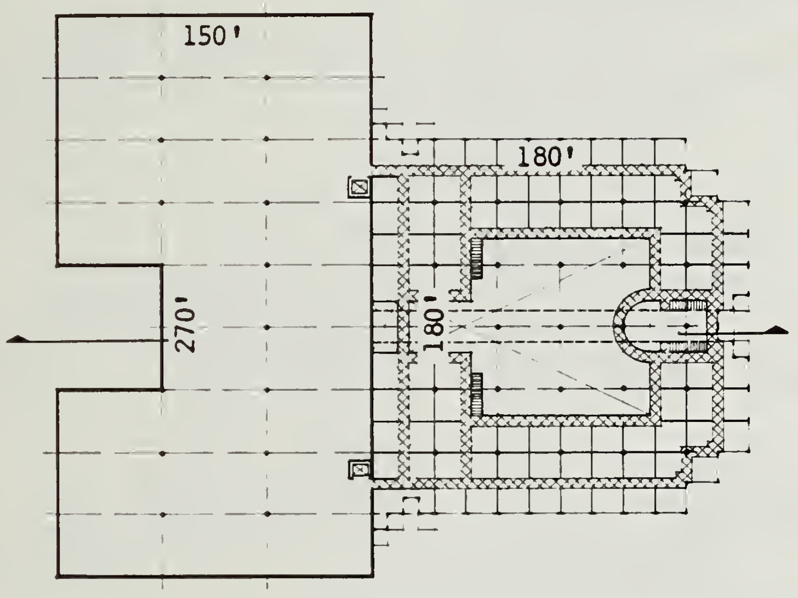
4.3 Furniture



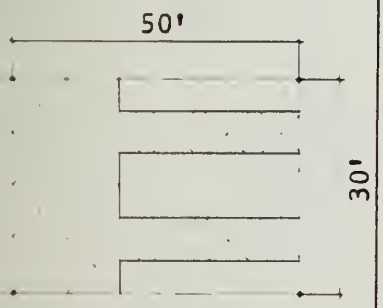
Ground Level Floor Plan



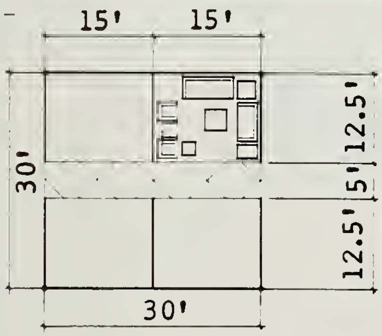
Longitudinal Section



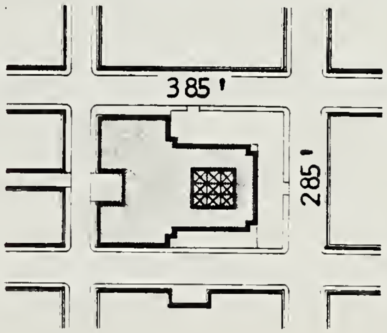
Mezzanine Level Floor Plan



Typical Bay: In-Store High Density Warehouse



Typical Bay: Furniture Display



Site Plan

RETAIL USES

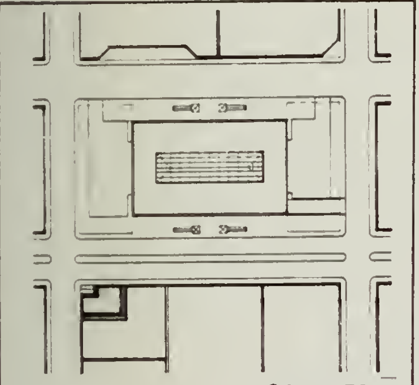
4.3 Furniture

PROTOTYPE: Furniture Retail / Custom

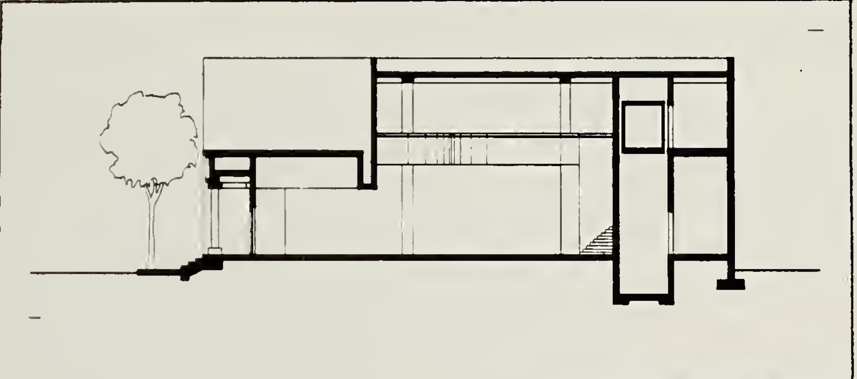
BUILDING PERCENTAGE LOT COVERAGE: 100%
USABLE OPEN SPACE: 0%
BLOCK SIZE: 60' x 80' (0.11 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE: 83,000 square feet/acre
FLOOR AREA RATIO: 1.91
FRONT SETBACK: 0'
REAR SETBACK: 0'
SIDE SETBACK: 0'
PUBLIC LANDSCAPING: Street trees
PRIVATE LANDSCAPING: None
PARKING LOCATION: None (in satellite lot)
PARKING RATIO: Not applicable
PARKING SPACES: Not applicable
NUMBER OF PARKING FLOORS: Not applicable

BUILDING FORM: Boutique
TOTAL LEASABLE FLOOR AREA: 9,150 square feet
TYPICAL FLOOR PLATE AREA: 4,800 square feet
TOTAL NUMBER OF FLOORS: 2
BUILDING HEIGHT: 33'
FLOOR-TO-FLOOR HEIGHT FIRST FLOOR: 15'
FLOOR-TO-FLOOR HEIGHT TYPICAL: 12'
LEASE DEPTHS: 60'

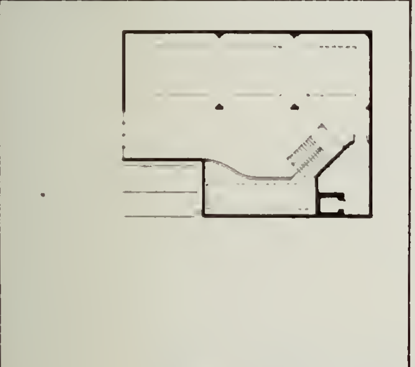
COMMENTARY: Image building.



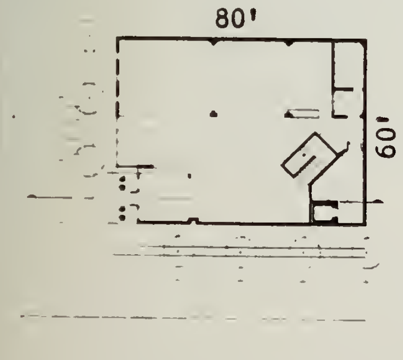
Site Plan



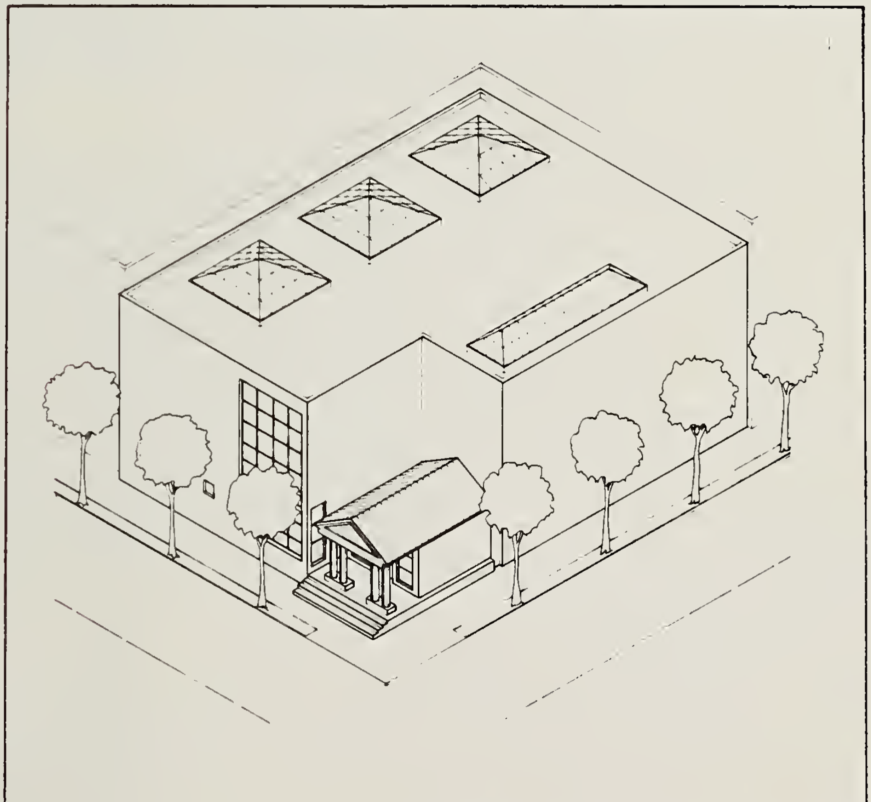
Longitudinal Section



Upper Floor Plan



Ground Floor Plan



Custom Furniture Store: View

5.0 Wholesale Uses

5.0 WHOLESALE USES

Within the framework the Choices for Mission Bay Report, June 11, 1986, it has been suggested that there is the possibility of expanding of the existing "Showplace Square" to a maximum acreage of 12 acres with 1,000,000 to 1,500,000 million square feet. It should be noted that this use is in direct competition with the possible location of the "New Giants Ball Park Proposal for Seventh and Townsend Streets" (see "Choices Report"). There exists a desire for expansion of the present "Showplace Square" area as attested to by the continuing influx of medium-sized custom furniture retailers. Finally, it should be noted that if San Francisco is to remain one of the West Coast design centers, this area will require expansion: Mission Bay represents the opportunity for that expansion.

Other possible uses suggested for the Mission Bay site include: Automobile showrooms, large building supply retailers, and large single-story wholesalers with associated warehousing. Research has been gathered to support these uses. However, for a variety of reasons, these uses will probably not be a factor in the development of Mission Bay. Foremost among these reasons is the fact that the density of these uses is not consistent with the scale of the proposed development. Other important factors not favoring development are: These businesses often do not generate many jobs, these uses usally do not generate the rents which are to be expected within an urban area; and the cost of the acquisition of land for these land-intensive uses may be too expensive.

5.1 WHOLESALE

5.1.1 WHOLESALE/DOCUMENTATION OF EXISTING BUILDINGS

A total of 11 uses were studied; of these, 5 were related to the wholesale and distribution of furniture. All of the examples were located in San Francisco. All of these furniture representatives were adjacent to each other in "Showplace Square". The methodology used was similar to that described in Section 3.0.

AUTOMOBILE SHOWRC

	BASIC INFORMATION				
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	
1	NEW/USED CARS 650 SERRAMONTE DALY CITY	■	2	SRV RTL ☐ RTL SRV	
2	NEW/LEASE CARS 760 SERRAMONTE DALY CITY	■	1	SRV RTL ☐ RTL SRV	AREA.
3	NEW/USED CARS 950 VAN NESS SAN FRANCISCO	■	1	RES OFF ☐ RTL SRV	
4	USED CARS VAN NESS AUTO PL. SAN FRANCISCO	■	1	RES OFF ☐ RTL SRV	
5	NEW/USED CARS 1400 VAN NESS SAN FRANCISCO	■	1	RES OFF ☐ RTL SRV	
6	NEW CARS S.F. AUTO CTR. SAN FRANCISCO	■	8	RES OFF ☐ RTL SRV	
7				☐	
8				☐	
9				☐	
10				☐	
11				☐	
12				☐	
13				☐	
14				☐	
15				☐	
16				☐	
17				☐	
18				☐	
19				☐	
20				☐	
21				☐	
SUMMARY **AUTOMOBILE SHOWROOM**			1	RES RTL ☐ RTL SRV	

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD

SITE INFORMATION SYMBOLS:

	LANDSCAPING
	NO LANDSCAPING
$	FEE REQUIRED
■	YES
☐	NO

STREET TYPE SYMBOLS:

↑ / ↑↑	ONE-WAY SINGLE / MULTI-LANE
↓↑ / ↓↓↑↑	TWO-WAY SINGLE / MULTI-LANE
	BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

	FLAT ROOF
	PITCHED ROOF
	DECORATIVE SHED

MASS SYMBOLS:

	SIMPLE
	COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

	TILT-UP
	FRAME
	STEEL FRAME / PRE-ENGINEERED METAL BUILDING
	CONCRETE: PRE-CAST / CAST-IN PLACE
	UNIT MASONRY

MATERIAL SYMBOLS:

	WOOD
	CONCRETE
	MASONRY
	METAL PANELS
	STUCCO

AUTOMOBILE SHOWROOM USES

	BASIC INFORMATION				SITE INFORMATION													ACCESSIBILITY						ARCHITECTURAL FORM								
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	FRONT SETBACK (FT.)	REAR SETBACK (FT.)	SIDE SETBACK (FT.)	SIDE SETBACK (FT.)	COURTYARD / ATRIUM	LANDSCAPE - PUBLIC	LANDSCAPE - PRIVATE	STREET PARKING	PUBLIC PARKING LOT FEE REQUIRED NUMBER OF SPACES	PRIVATE PARKING LOT FEE REQUIRED NUMBER OF SPACES	PUBLIC LOADING ZONE	TRUCK LOADING DOCK	NUMBER OF DOORS	STREET TYPE	PEDESTRIAN WALK-UP	PUBLIC TRANSPORTATION	NO. OF ROUTES W/IN 2 BLOCKS	FREEWAY ACCESS W/IN 1/2 MILE	DISTANCE TO FINANCIAL CENTER (MI.)	BUILDING HEIGHT (FT.)	NUMBER OF STORIES	GROSS SQ. FT. X 1000	ROOF TYPE	MASS	TYPE OF CONSTRUCTION	MATERIAL: ROOF	MATERIAL: BUILDING	STYLE & COMMENTS:
1	NEW/USED CARS 560 SERRAMONTE DALY CITY	■	2	SRV RTL □ RTL SRV	60	60	0	0	□	🚫	🌳	□	□	■ 30	□	□		↓↓↑↑	□	■	1	■	□	15	1	10	⊓	⧉	▱	N.A.	▱	SHED. TWO BLDGS. SHARE LOT. MUCH GLAZING.
2	NEW/LEASE CARS 780 SERRAMONTE DALY CITY	■	1	SRV RTL □ RTL SRV	60	100	20	20	□	🚫	🌳	□	■ 40	■ 250	□	□		↓↓↑↑	□	■	1	■	□	20	1	34	⊓	⧉	🧱	N.A.	🧱	INTERNATIONAL W/ MUCH GLAZING. SEPARATE BUT ATTACHED SERVICE AREA.
3	NEW/USED CARS 950 VAN NESS SAN FRANCISCO	■	1	RES OFF □ RTL SRV	0	0	0	0	□	🚫	🌳	■	□	□	■	■		↓↓⦙↑↑	■	■	8	■	1.4	25	2	22	⊓	▢	🧱	N.A.	▨	NEO-CLASSICAL W/ MUCH GLAZING. AWNINGS OVER SIDEWALK.
4	USED CARS VAN NESS AUTO PL. SAN FRANCISCO	■	1	RES OFF □ RTL SRV	0	0	0	0	□	🚫	🚫	■	□	□	□	□		↓↓↑↑	■	■	8	■	1.4	20	1	11	⊓	▢	▱	N.A.	▨	WAREHOUSE W/ MUCH GLAZING
5	NEW/USED CARS 1400 VAN NESS SAN FRANCISCO	■	1	RES OFF □ RTL SRV	0	0	0	0	□	🚫	🚫	■	□	■ 75	■	□		↓↓⦙↑↑	■	■	9	■	1.4	70	6	110	⊓	▢	🧱	N.A.	▨	WAREHOUSE W/ MUCH GLAZING & ART DECO DETAILS
6	NEW CARS S.F. AUTO CTR. SAN FRANCISCO	■	8	RES OFF □ RTL SRV	200	0	0	0	□	🚫	🌳	■	■ 220	■ 300	■	□		↓↓↑↑	□	■	2	■	1.0	30	2	550	⌂	⧉	⊤	N.A.	▨	SHOPPING CENTER W/ BANK & SERVICE ON SITE
7				□																												
8				□																												
9				□																												
10				□																												
11				□																												
12				□																												
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20				□																												
21				□																												
SUMMARY	AUTOMOBILE SHOWROOM		1	RES RTL □ RTL SRV	50	25	0	0	□	🚫	🌳	■	□	■ 110	□	□	N.A	↓↓↑↑	■	■	6	■	1.4	14	1	27	⊓	▢	🧱	N.A.	▨	INDUSTRIAL BUILDING W/ MUCH GLAZING. OUTSIDE DISPLAY AREA.

LEGEND:

ADJACENT USES:

WHS — WAREHOUSE / STORAGE
RTL — RETAIL
RES — RESIDENTIAL
OFF — OFFICE / COMMERCIAL
INS — INSTITUTIONAL
LTI — LIGHT INDUSTRIAL
SHR — SHOWROOM / RETAIL WHOLESALE
SRV — SERVICE
RRO — RAILROAD

SITE INFORMATION SYMBOLS:

🌳 — LANDSCAPING
🚫 — NO LANDSCAPING
$ — FEE REQUIRED
■ — YES
□ — NO

STREET TYPE SYMBOLS:

↑ / ↑↑ — ONE-WAY SINGLE / MULTI-LANE
↓↑ / ↓↓↑↑ — TWO-WAY SINGLE / MULTI-LANE
↓⦙↑ / ↓↓⦙↑↑ — BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

⊓ — FLAT ROOF
⌂ — PITCHED ROOF
⏍ — DECORATIVE SHED

MASS SYMBOLS:

▢ — SIMPLE
⧉ — COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

⧅ — TILT-UP
▱ — FRAME
⌶ — STEEL FRAME / PRE-ENGINEERED METAL BUILDING
⊤ — CONCRETE: PRE-CAST / CAST-IN PLACE
🧱 — UNIT MASONRY

MATERIAL SYMBOLS:

▱ — WOOD
⊤ — CONCRETE
🧱 — MASONRY
⌶ — METAL PANELS
▨ — STUCCO

WHOLESALE USES

REFERENCE NUMBER	BASIC INFORMATION SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJ/CENT USES	
1	CONTRACT FURN. 808 SRANNAN SAN FRANCISCO	☐	100	WHS RES ☐ R SHR	TRY
2	AUDITORIUM EXHIB. CONCOURSE SAN FRANCISCO	☐	0	WHS RES ☐ R SHR	ALL UM
3	CONTRACT FURN. CONTRACT CTR. SAN FRANCISCO	■	50	WHS RES ☐ R SHR	
4	CONTRACT FURN. SHOWPLACE SQ. SAN FRANCISCO	■	100	WHS RES ☐ R RRO	
5	AUDIT./SHOWRM. GALLERIA CTR. SAN FRANCISCO	■	50	WHS RES ☐ R RRO	
6	LIGHTING SAY COMMERCIAL SAN FRANCISCO	■	1	WHS RES ☐ R SHR	
7	REST'ANT. SUP. FOOD SERV. CTR. SAN FRANCISCO	■	25	WHS RES ☐ R SHR	
8	GIFT SHOWRMS. GIFT CENTER SAN FRANCISCO	■	350	WHS RES ☐ R SHR	
9	FLOWERS FLOWER MART SAN FRANCISCO	■	20	OFF OFF ☐ R SRV	. SINGLE ● OFFICE.
10	LIQUOR HAAS BROS. SAN FRANCISCO	■	1	OFF SRV ☐ R RRO	
11	CLOTHING APPAREL MART S/N FRANCISCO	■	100	OFF RTL ☐ O RTL	.
12				☐	
13				☐	
14				☐	
15				☐	
16				☐	
17				☐	
18				☐	
19				☐	
20				☐	
21				☐	
SUMMARY **WHOLESALE USES**			70	WHS RES ☐ R SHR	EHOUSE LEO ENTRY.

LEGEND:

ADJACENT USES:

WHS	WAREHOUSE / STORAGE
RTL	RETAIL
RES	RESIDENTIAL
OFF	OFFICE / COMMERCIAL
INS	INSTITUTIONAL
LTI	LIGHT INDUSTRIAL
SHR	SHOWROOM / RETAIL WHOLESALE
SRV	SERVICE
RRO	RAILROAD

SITE INFORMATION SYMBOLS:

LANDSCAPING

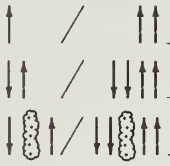
NO LANDSCAPING

$ FEE REQUIRED

■ YES

☐ NO

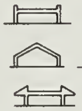
STREET TYPE SYMBOLS:


ONE-WAY SINGLE / MULTI-LANE

TWO-WAY SINGLE / MULTI-LANE

BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:


FLAT ROOF

PITCHED ROOF

DECORATIVE SHED

MASS SYMBOLS:

SIMPLE

COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

TILT-UP

FRAME

STEEL FRAME / PRE-ENGINEERED METAL BUILDING

CONCRETE: PRE-CAST / CAST-IN PLACE

UNIT MASONRY

MATERIAL SYMBOLS:

WOOD

CONCRETE

MASONRY

METAL PANELS

STUCCO

WHOLESALE USES

	BASIC INFORMATION				SITE INFORMATION													ACCESSIBILITY						ARCHITECTURAL FORM								
REFERENCE NUMBER	SPECIFIC USE BLDG. NAME LOCATION	OCCUPIED	NUMBER OF TENANTS	ADJACENT USES	FRONT SETBACK (FT.)	REAR SETBACK (FT.)	SIDE SETBACK (FT.)	SIDE SETBACK (FT.)	COURTYARD / ATRIUM	LANDSCAPE - PUBLIC	LANDSCAPE - PRIVATE	STREET PARKING	PUBLIC PARKING LOT FEE REQUIRED NUMBER OF SPACES	PRIVATE PARKING LOT FEE REQUIRED NUMBER OF SPACES	PUBLIC LOADING ZONE	TRUCK LOADING DOCK	NUMBER OF DOORS	STREET TYPE	PEDESTRIAN WALK-UP	PUBLIC TRANSPORTATION	NO. OF ROUTES W/IN 2 BLOCKS	FREEWAY ACCESS W/IN 1/2 MILE	DISTANCE TO FINANCIAL CENTER (MI.)	BUILDING HEIGHT (FT.)	NUMBER OF STORIES	GROSS SQ. FT. X 1000	ROOF TYPE	MASS	TYPE OF CONSTRUCTION	MATERIAL: ROOF	MATERIAL: BUILDING	STYLE & COMMENTS:
1	CONTRACT FURN. 808 BRANNAN SAN FRANCISCO	☐	100	WHS RES RTL SHR	0	0	0	0	■	🚫	🚫	■	■ $ 260	☐	■	■	1	↓↓↑↑	■	■	4	■	1.5	40	2.5	42	⊓	▢	▤	N.A.	▤	INDUSTRIAL W/ OVER SCALED ENTRY W/ ATRIUM / MEZZANINE
2	AUDITORIUM EXHIB. CONCOURSE SAN FRANCISCO	☐	0	WHS RES RTL SHR	50	0	30	30	■	🚫	🌳	■	■ $ 260	■ 40	■	■	14	↓↓↑↑	■	■	4	■	1.3	35	2	225	⌂	⧉	I	I	I	INDUSTRIAL W/ GLASS WINDOW WALL @ EA. END - CLERESTORY, ATRIUM
3	CONTRACT FURN. CONTRACT CTR. SAN FRANCISCO	■	50	WHS RES RTL SHR	0	150	20	100	■	🚫	🌳	■	■ $ 60	■ $ 100	☐	■	1	↓↓↑↑	■	■	4	■	1.4	60	4	60	⊓	▢	I	N.A.	▤	INDUSTRIAL
4	CONTRACT FURN. SHOWPLACE SQ. SAN FRANCISCO	■	100	WHS RES RTL RRD	20	60	0	0	■	🌳	🌳	■	■ $ 100	■ $ 60	■	■	2	↑↑	■	■	1	■	1.0	50	4	200	⊓	▢	⊤	N.A.	▤	RENOVATED WAREHOUSE
5	AUDIT./SHOWRM. GALLERIA CTR. SAN FRANCISCO	■	50	WHS RES RTL RRD	20	0	0	0	■	🚫	🌳	■	■ $ 240	☐	■	■	5	↓↓↑↑	■	■	4	■	1.5	60	4	200	⊓	▢	▤	N.A.	▤	RENOVATED WAREHOUSE W/ REFLECTIVE GLASS INFILL
6	LIGHTING BAY COMMERCIAL SAN FRANCISCO	■	1	WHS RES RTL SHR	0	150	0	0	☐	🚫	🚫	■	☐	■ 50	☐	■	1	↓↑	☐	■	4	■	1.3	20	1	14	⊓	⧉	⊤	N.A.	◔	INDUSTRIAL. MOST WINDOWS HAVE BEEN BLOCKED UP.
7	REST'RNT. SUP. FOOD SERV. CTR. SAN FRANCISCO	■	25	WHS RES RTL SHR	0	70	0	0	■	🚫	🌳	■	■ 25	☐	■	■	2	↓↑	☐	■	1	■	1.0	75	6	90	⌂	⧉	⊤	N.A.	◔	INTERNATIONAL, OFFICE BLDG. W/ HIGH SECURITY ENTRY
8	GIFT SHOWRMS. GIFT CENTER SAN FRANCISCO	■	350	WHS RES RTL SHR	10	0	10	0	■	🚫	🚫	■	■ $ 240	■ $ 155	■	■	3	↓↓↑↑	■	■	4	■	1.3	55	4	285	⊓	▢	I	N.A.	▤	WAREHOUSE W/ ATRIUM. NO NEED FOR NATURAL LIGHT.
9	FLOWERS FLOWER MART SAN FRANCISCO	■	20	OFF OFF RTL SRV	0	0	0	0	■	🌳	🚫	■	■ $ 50	■ 50	☐	■	N.A.	↓↓↑↑	☐	■	4	■	1.0	20	1	50	⊓	⧉	⧄	N.A.	▤	INDUSTRIAL. 2 BLDGS. ON SITE. SINGLE LOADED FROM EXTERIOR. BRICK @ OFFICE.
10	LIQUOR HAAS BROS. SAN FRANCISCO	■	1	OFF SRV RTL RRD	90	0	0	0	☐	🚫	🌳	■	☐	■ 20	☐	■	5	↓↓↑↑	☐	■	4	■	2.0	20	1	48	⊓	⧉	⧄	N.A.	▤	INTERNATIONAL. MODERN OFFICE ATTACHED W/ BRICK EXTERIOR.
11	CLOTHING APPAREL MART SAN FRANCISCO	■	100	OFF RTL OFF RTL	0	0	0	0	■	🌳	🌳	■	☐	☐	☐	■	1	↓↓⦙↑↑	■	■	8	☐	.5	116	9	500	⊓	⧉	⊤	N.A.	▤	2 BLDGS.: 1 - MODERN. 1 - NEO-CLASSICAL, RENOVATED.
12																																
13																																
14																																
15																																
16																																
17																																
18																																
19																																
20																																
21																																
SUMMARY WHOLESALE USES			70	WHS RES RTL SHR	20	40	5	10	■	🚫	🌳	■	■ $ 110	■ 40	■	■	3	↓↓↑↑	■	■	4	■	1.4	50	4	155	⊓	⧉	I	N.A.	▤	RENOVATED INDUSTRIAL OR WAREHOUSE BUILDING OFTEN WITH OVERSCALED ENTRY.

LEGEND:

ADJACENT USES:

WHS — WAREHOUSE / STORAGE
RTL — RETAIL
RES — RESIDENTIAL
OFF — OFFICE / COMMERCIAL
INS — INSTITUTIONAL
LTI — LIGHT INDUSTRIAL
SHR — SHOWROOM / RETAIL WHOLESALE
SRV — SERVICE
RRD — RAILROAD

SITE INFORMATION SYMBOLS:

🌳 — LANDSCAPING
🚫 — NO LANDSCAPING
$ — FEE REQUIRED
■ — YES
☐ — NO

STREET TYPE SYMBOLS:

↑ / ↑↑ — ONE-WAY SINGLE / MULTI-LANE
↓↑ / ↓↓↑↑ — TWO-WAY SINGLE / MULTI-LANE
↓⦙↑ / ↓↓⦙↑↑ — BOULEVARD SINGLE / MULTI-LANE

ROOF TYPE SYMBOLS:

⊓ — FLAT ROOF
⌂ — PITCHED ROOF
⌓ — DECORATIVE SHED

MASS SYMBOLS:

▢ — SIMPLE
⧉ — COMPLEX

TYPE OF CONSTRUCTION SYMBOLS:

⧄ — TILT-UP
▭ — FRAME
I — STEEL FRAME / PRE-ENGINEERED METAL BUILDING
⊤ — CONCRETE: PRE-CAST / CAST-IN PLACE
▤ — UNIT MASONRY

MATERIAL SYMBOLS:

▭ — WOOD
⊤ — CONCRETE
▤ — MASONRY
I — METAL PANELS
◔ — STUCCO

5.1.2 WHOLESALE/ANALYSIS

BASIC INFORMATION: Typically these buildings were multi-tenanted. Most of the buildings were originally built for other uses and have been renovated. Adjacent uses were similar wholesale, retail, or service.

SITE INFORMATION: Setbacks were usually found to be zero feet. Exceptions to this occurred at loading areas or where parking was provided. Most of the wholesale buildings had some sort of atrium or courtyard space for entertaining convention-sized meetings or holding parties for introducing new lines. Public landscaping was not typical of the area. Most of the buildings provided private landscaping, often in the form of small gardens or entry courts. Street parking was allowed adjacent to all uses. Parking, whether private or public, required a fee and parking was typically shared between several buildings and located in satellite lots within a block of the buildings. It was observed that the parking areas were not full. Public loading zones were evidenced at most of the buildings, but since none of these uses sells directly to the public, this did not seem to be a requirement for development. All buildings had truck dock facilities which were typically used infrequently (i.e., to replace or renew lines of furniture), the exception to this being those facilities which stored, as well as wholesaled, merchandise.

ACCESSIBILITY: Street types were predominantly multi-lane, two-way. Freeway access was a characteristic of the "Showplace Square" area, as was its adjacency to downtown. Public transportation served the area very well, and the buildings were pedestrian-oriented.

WHOLESALE USES

5.1 Wholesale

ARCHITECTURAL FORM: Buildings, with the exception of two, were multi-storied. In the case of the wholesale furniture stores at "Showplace Square", there would appear to be few limits on the potential height of the buildings. The buildings had widely varying floor plates. The central planning feature of the space was one of maximum flexibility (no intermediate columns and average lease depths of 50 feet. Roof types were typically flat. the buildings now used for the wholesale of furniture, gifts, food service equipment, and clothing were all renovated buildings. Typically, they were loft warehouse buildings and, as such, had rectilinear plans. Usually, the exterior building material was brick and most fenestration had been replaced with spandrel (non view) glass or had been covered over from the inside. A typical feature of these buildings was their renovation in high style, often with either "high tech" or classical motifs. This was especially true at the entrances which were usually monumental and overscaled.

5.1.3 WHOLESALE/PROTOTYPES

WHOLESALE/ATRIUM

WHOLESALE/NON ATRIUM

WHOLESALE USES

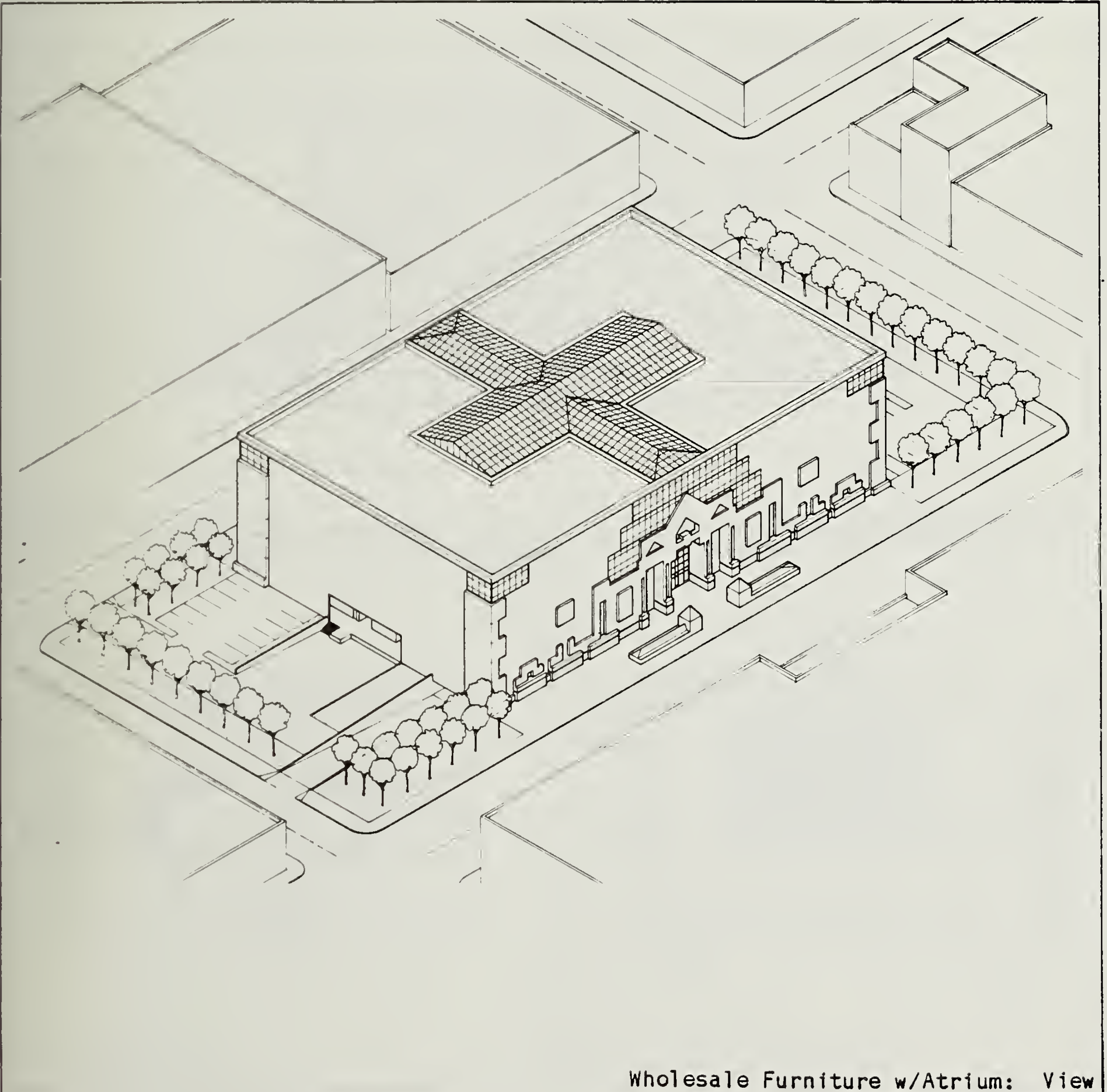
5.1 Wholesale

PROTOTYPE: Wholesale Furniture / Atrium

BUILDING PERCENTAGE LOT COVERAGE: 47%
USABLE OPEN SPACE: 28%
BLOCK SIZE: 540' x 250' (3.10 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE: 88,906 square feet/acre
FLOOR AREA RATIO: 2.88
FRONT SETBACK: 25'
REAR SETBACK: 25'
SIDE SETBACK: 110'
PUBLIC LANDSCAPING: Street trees
PRIVATE LANDSCAPING: Buffer at parking and loading areas
PARKING LOCATION: Surface lots and under building
PARKING RATIO: 1:1800
PARKING SPACES: 180
NUMBER OF PARKING FLOORS: Surface and one below grade

BUILDING FORM: Monolithic with atrium
TOTAL LEASABLE FLOOR AREA: 325,000 square feet
TYPICAL FLOOR PLATE AREA: 64,000 square feet
TOTAL NUMBER OF FLOORS: 6
BUILDING HEIGHT: 90'
FLOOR-TO-FLOOR HEIGHT FIRST FLOOR: 17'
FLOOR-TO-FLOOR HEIGHT TYPICAL: 14'
LEASE DEPTHS: 50'

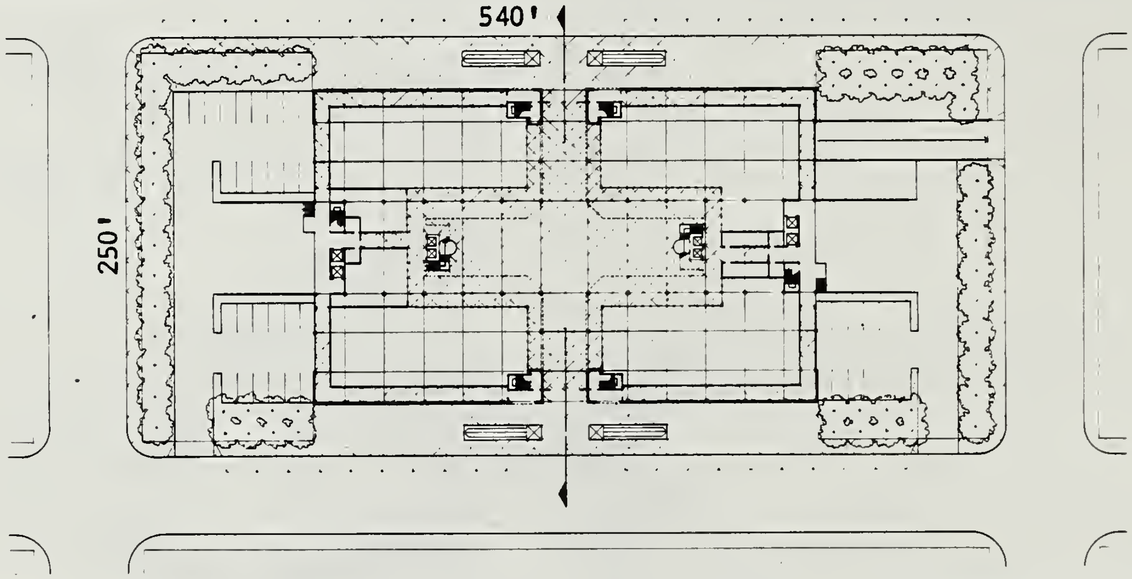
COMMENTARY: Landscape buffer for parking and loading/unloading.



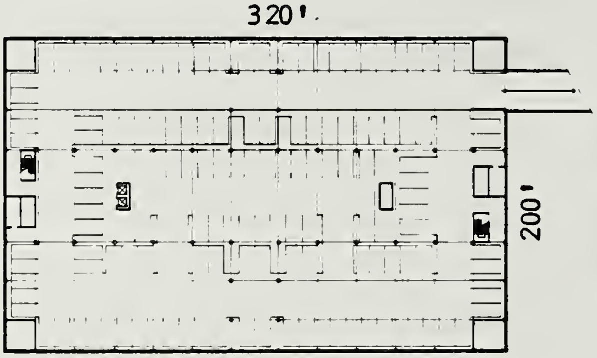
Wholesale Furniture w/Atrium: View

WHOLESALE USES

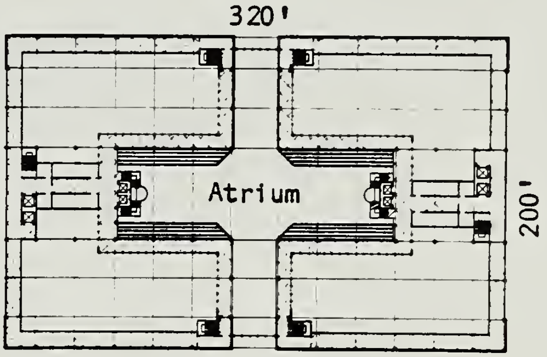
5.1 Wholesale



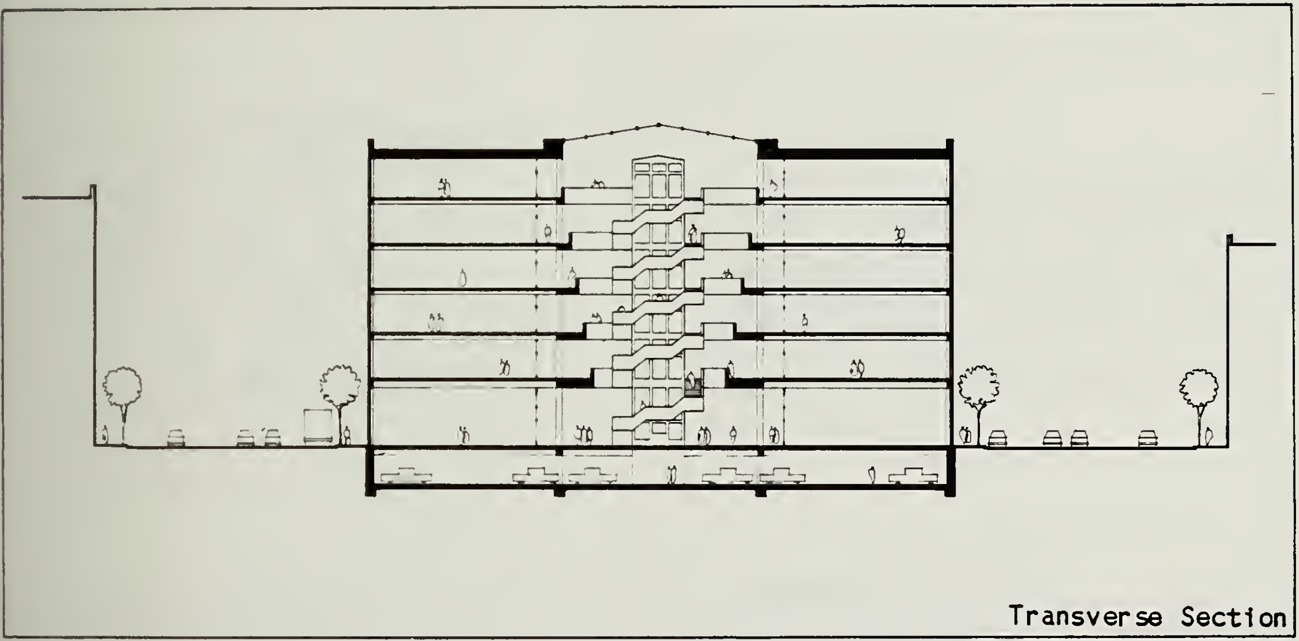
Ground Floor Plan



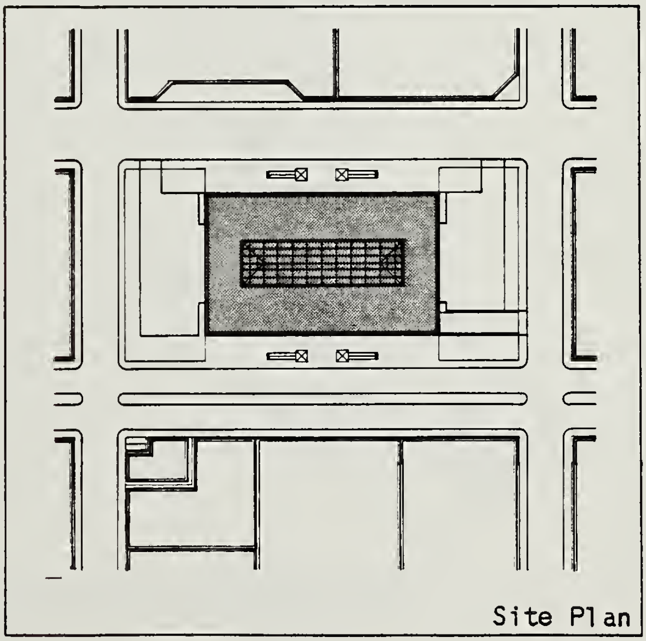
Parking Plan: Below Grade



Typical Floor Plan



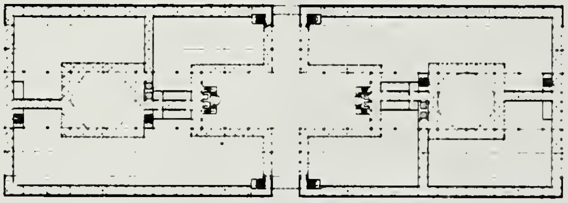
Transverse Section



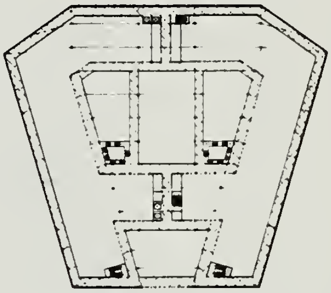
Site Plan

WHOLESALE USES

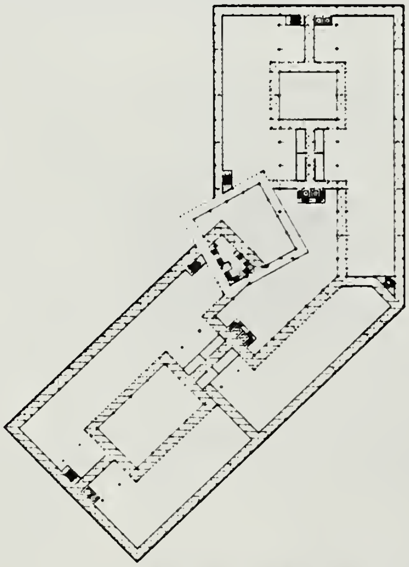
5.1 Wholesale



Floor Plan Variation No. 1



Floor Plan Variation No. 2



Floor Plan Variation No. 3

Buildings are flexible in form within the following parameters:

- 50' ± lease span
- Architecturally interesting detailing
- Unique entry

WHOLESALE USES

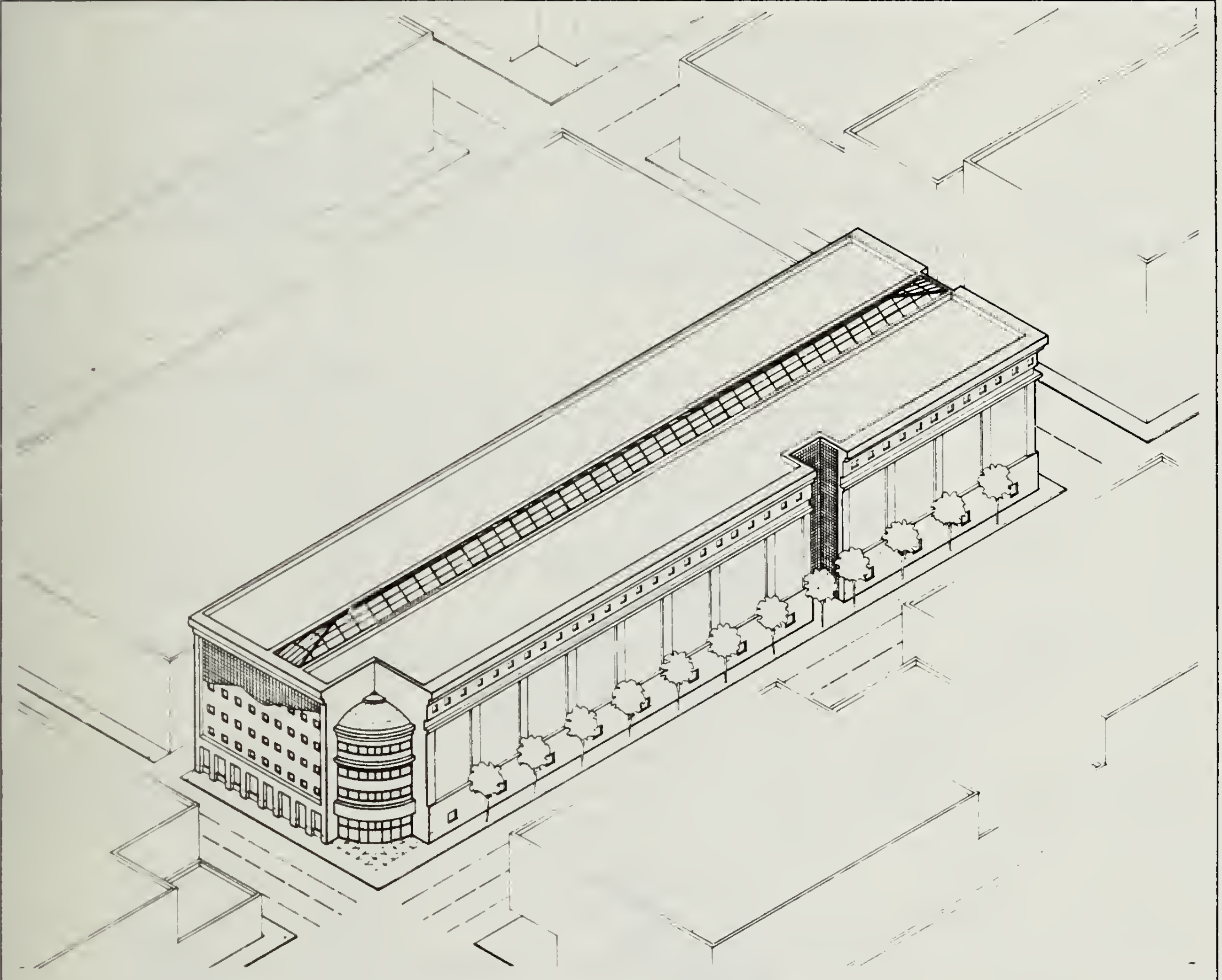
5.1 Wholesale

PROTOTYPE: Wholesale Furniture / Non Atrium

BUILDING PERCENTAGE LOT COVERAGE: 100%
USABLE OPEN SPACE: 0%
BLOCK SIZE: 435' x 270' (2.70 acres)
GROSS SQUARE FEET DEVELOPMENT PER ACRE: 235,000 square feet/acre
FLOOR AREA RATIO: 6.31
FRONT SETBACK: 0'
REAR SETBACK: 0'
SIDE SETBACK: 0'
PUBLIC LANDSCAPING: Street trees
PRIVATE LANDSCAPING: None
PARKING LOCATION: Below building
PARKING RATIO: 1:3300
PARKING SPACES: 84
NUMBER OF PARKING FLOORS: 1

BUILDING FORM: Monolithic with no atrium/courtyard and double loaded corridor
TOTAL LEASABLE FLOOR AREA: 270,600 square feet
TYPICAL FLOOR PLATE AREA: 45,100 square feet
TOTAL NUMBER OF FLOORS: 6
BUILDING HEIGHT: 90'
FLOOR-TO-FLOOR HEIGHT FIRST FLOOR: 17'
FLOOR-TO-FLOOR HEIGHT TYPICAL: 14'
LEASE DEPTHS: 50'

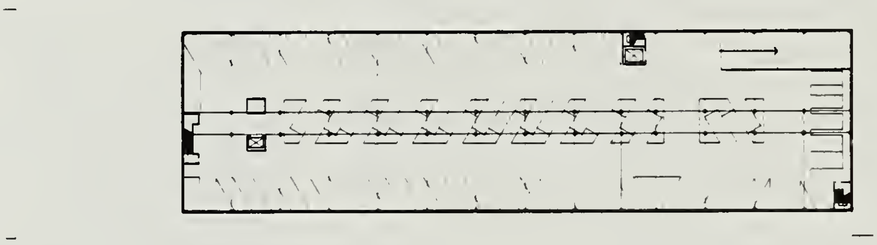
COMMENTARY: Would accompany atrium-type "showroom" building.



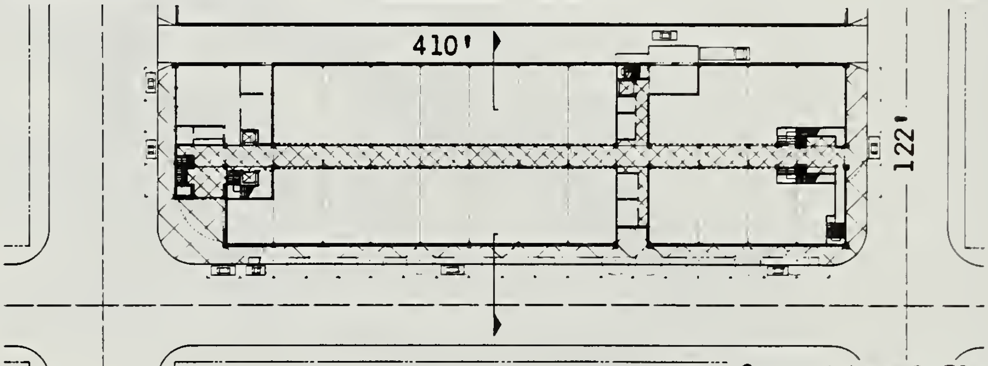
Wholesale Furniture: View

WHOLESALE USES

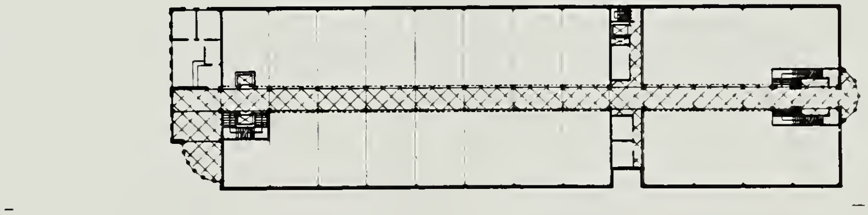
5.1 Wholesale



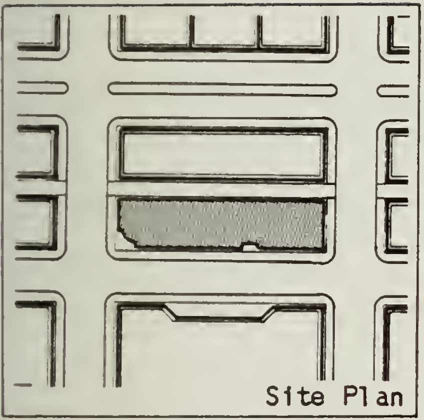
Parking Plan: Below Grade



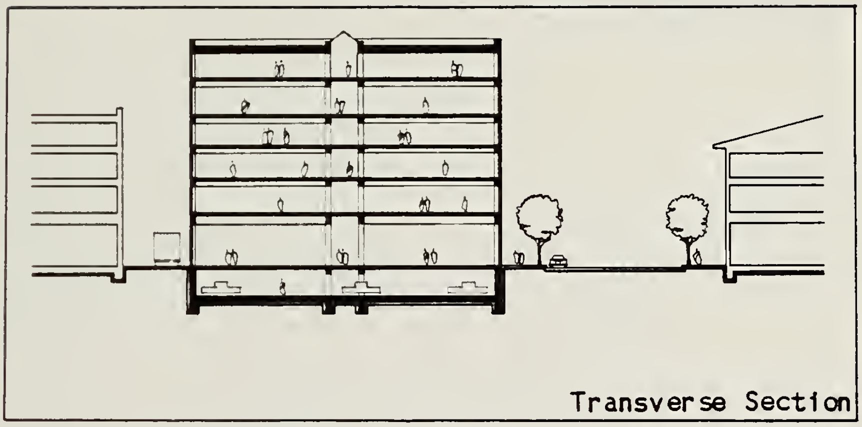
Ground Level Plan



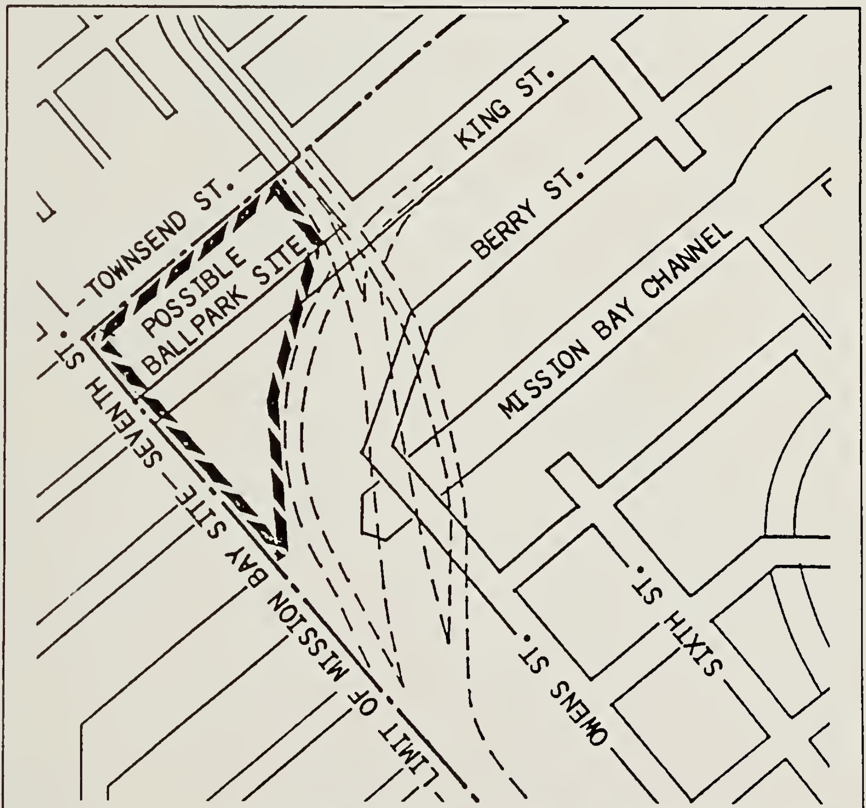
Typical Floor Plan



Site Plan



Transverse Section



POSSIBLE "SHOWPLACE SQUARE" EXPANSION SITE

6.0 Appendix

APPENDIX

Appended to this report, and published under separate cover are the "field report" worksheets for Existing Building types. Research and Development Uses, Light Industrial Uses, Large Scale Retail Uses, Furniture Retail Uses, and Wholesale Uses are listed in the same order as they are presented in the matricies. Representative photographs of each building are also included.

CREDITS

The following firms and organizations deserve special recognition for the information and ideas they have provided in preparation of this report:

Chin and Hensolt Engineering, Inc.

Concord Redevelopment Agency

Cushman & Wakefield of California, Inc.

Glendale Redevelopment Agency.

San Francisco Department of City Planning -
Neighborhood Commercial Rezoning Study.
Downtown Plan.

Terranomics, Inc.

Williams and Burroughs Inc.